STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3
AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL

1. WELL NAME and NUMBER
NBU 1021-29I1CS

2. TYPE OF WORK
DRILL NEW WELL ● REENTER P&A WELL ○ DEEPEN WELL ○

3. FIELD OR WILDCAT
NATURAL BUTTES

4. TYPE OF WELL
Gas Well Coalbed Methane Well: NO

5. UNIT or COMMUNITIZATION AGREEMENT NAME
NATURAL BUTTES

6. NAME OF OPERATOR
KERR-MCGEE OIL & GAS ONSHORE, L.P.

7. OPERATOR PHONE
720 929-6515

8. ADDRESS OF OPERATOR
P.O. Box 173779, Denver, CO, 80217

9. OPERATOR E-MAIL
julie.jacobson@anadarko.com

10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)
ML 21330

11. MINERAL OWNERSHIP
FEDERAL ○ INDIAN ○ STATE ● FEE ○

12. SURFACE OWNERSHIP
FEDERAL ○ INDIAN ○ STATE ● FEE ○

13. NAME OF SURFACE OWNER (if box 12 = 'fee')

14. SURFACE OWNER PHONE (if box 12 = 'fee')

15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')

16. SURFACE OWNER E-MAIL (if box 12 = 'fee')

17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')

18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS
YES ● (Submit Commingling Application) NO ○

19. SLANT
VERTICAL ○ DIRECTIONAL ● HORIZONTAL ○

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	1988 FSL 409 FEL	NESE	29	10.0 S	21.0 E	S
Top of Uppermost Producing Zone	2173 FSL 503 FEL	NESE	29	10.0 S	21.0 E	S
At Total Depth	2173 FSL 503 FEL	NESE	29	10.0 S	21.0 E	S

21. COUNTY
UINTAH

22. DISTANCE TO NEAREST LEASE LINE (Feet)
503

23. NUMBER OF ACRES IN DRILLING UNIT
640

25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)
2156

26. PROPOSED DEPTH
MD: 9290 TVD: 9279

27. ELEVATION - GROUND LEVEL
5256

28. BOND NUMBER
22013542

29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE
Permit #43-8496

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	11	8.625	0 - 2060	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
Prod	7.875	4.5	0 - 9290	11.6	I-80 Buttress	12.5	Premium Lite High Strength	270	3.38	11.0
							50/50 Poz	1080	1.31	14.3

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

- ☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
- ☑ COMPLETE DRILLING PLAN
- ☐ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)
- ☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
- ☑ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)
- ☑ TOPOGRAPHICAL MAP

NAME	TITLE	PHONE
Danielle Piernot	Regulatory Analyst	720 929-6156
SIGNATURE	**DATE** 03/11/2011	**EMAIL** danielle.piernot@anadarko.com

API NUMBER ASSIGNED
43047515280000

APPROVAL

Permit Manager

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Kerr-McGee Oil & Gas Onshore. L.P.

NBU 1021-29I1CS

Surface: 1988 FSL / 409 FEL NESE
BHL: 2173 FSL / 503 FEL NESE

Section 29 T10S R21E

Unitah County, Utah
Mineral Lease: UT ST ML 21330

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 - Surface	
Green River	989	
Birds Nest	1263	Water
Mahogany	1606	Water
Wasatch	4184	Gas
Mesaverde	7055	Gas
MVU2	8002	Gas
MVL1	8510	Gas
TVD	9279	
TD	9290	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

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7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 9279' TVD, approximately equals 5,926 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,884 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-
(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

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Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

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on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

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KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP			DATE	February 10, 2011
WELL NAME	**NBU 1021-29I1CS**			TD	9,279' TVD 9,290' MD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah		FINISHED ELEVATION 5255.6
SURFACE LOCATION	NESE 1988 FSL 409 FEL	Sec 29	T 10S	R 21E	
	Latitude: 39.916772	Longitude: -109.56677			NAD 27
BTM HOLE LOCATION	NESE 2173 FSL 503 FEL	Sec 29	T 10S	R 21E	
	Latitude: 39.917278	Longitude: -109.567123			NAD 27
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.				

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'	14"		
			11'	8-5/8", 28#, IJ-55, LTC	Air mist

All water flows encountered while drilling will be reported to the appropriate agencies.

Green River @	**0,989'**
Top of Birds Nest @	**1,263'**
Mahogany @	**1,606'**
Preset f/ GL @	**2,060' MD**

Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.

Wasatch @	**4,184'**

Mud logging program TBD

Cased hole logging program from TD - surf csg

Mverde @	**7,055' TVD**
MVU2 @	**8,002' TVD**
MVU1 @	**8,510' TVD**

		7-7/8"	4-1/2" 11.6# I-80 or equivalent BTC csg	Water / Fresh Water Mud 8.3-12.5 ppg

Max anticipated Mud required 12.5 ppg

TD @ 9,279' TVD 9,290' MD

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KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
						3,390	1,880	348,000
SURFACE	8-5/8"	0 to 2,060	28.00	IJ-55	LTC	2.63	1.95	5.97
						7,780	6,350	367,000
PRODUCTION	4-1/2"	0 to 9,290	11.60	I-80	BTC	1.11	1.05	4.21

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
			+ 2% CaCl + 0.25 pps flocele				
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**				
Option 2	LEAD	1,560'	65/35 Poz + 6% Gel + 10 pps gilsonite	150	35%	11.00	3.82
			+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	3,680'	Premium Lite II +0.25 pps	270	10%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	5,610'	50/50 Poz/G + 10% salt + 2% gel	1,080	10%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____

Nick Spence / Emile Goodwin

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Kenny Gathings / Lovel Young

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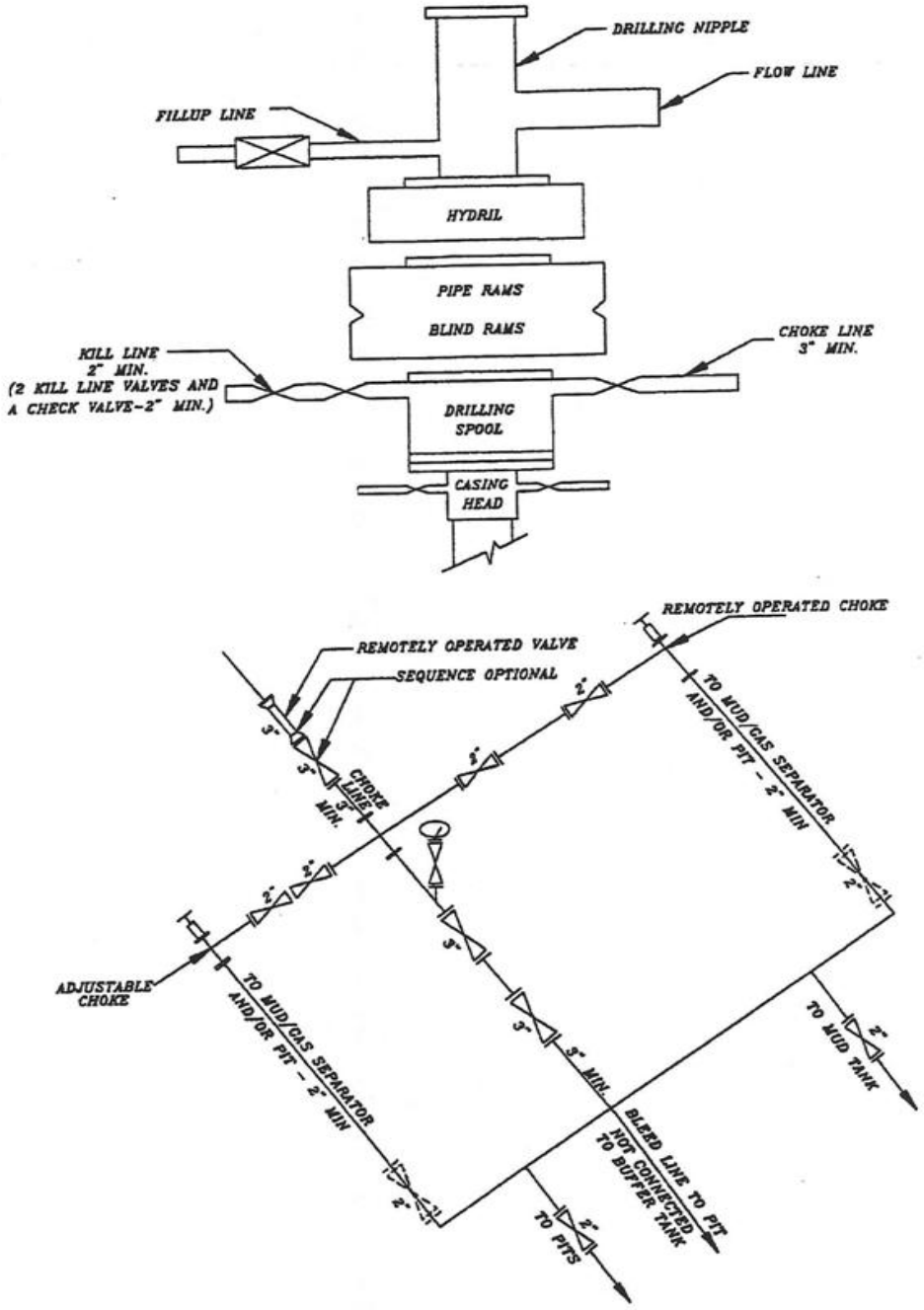
EXHIBIT A
NBU 1021-29I1CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

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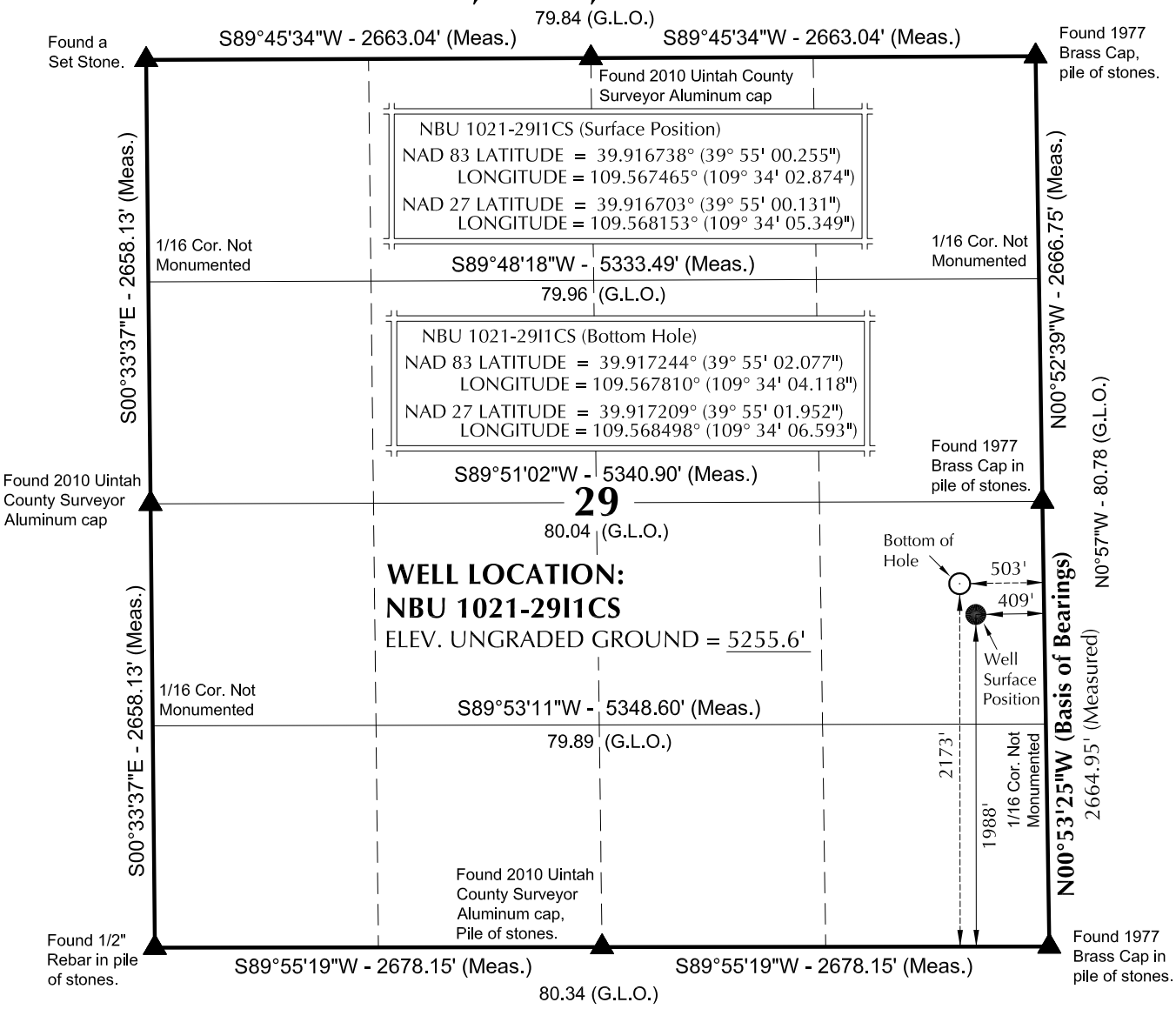
T10S, R21E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears N27°39'38"W 208.29' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

N

1000' 500' 0' 1000'

SCALE

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

PROFESSIONAL LAND SURVEYOR No.6028691 JOHN R SLAUGH STATE OF UTAH

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD: NBU 1021-29I

NBU 1021-29I1CS
WELL PLAT
2173' FSL, 503' FEL (Bottom Hole)
NE ¼ SE ¼ OF SECTION 29, T10S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 10-29-10	SURVEYED BY: D.J.S.	SHEET NO: 2
DATE DRAWN: 11-08-10	DRAWN BY: B.M.	2 OF 16
SCALE: 1" = 1000'	Date Last Revised:	

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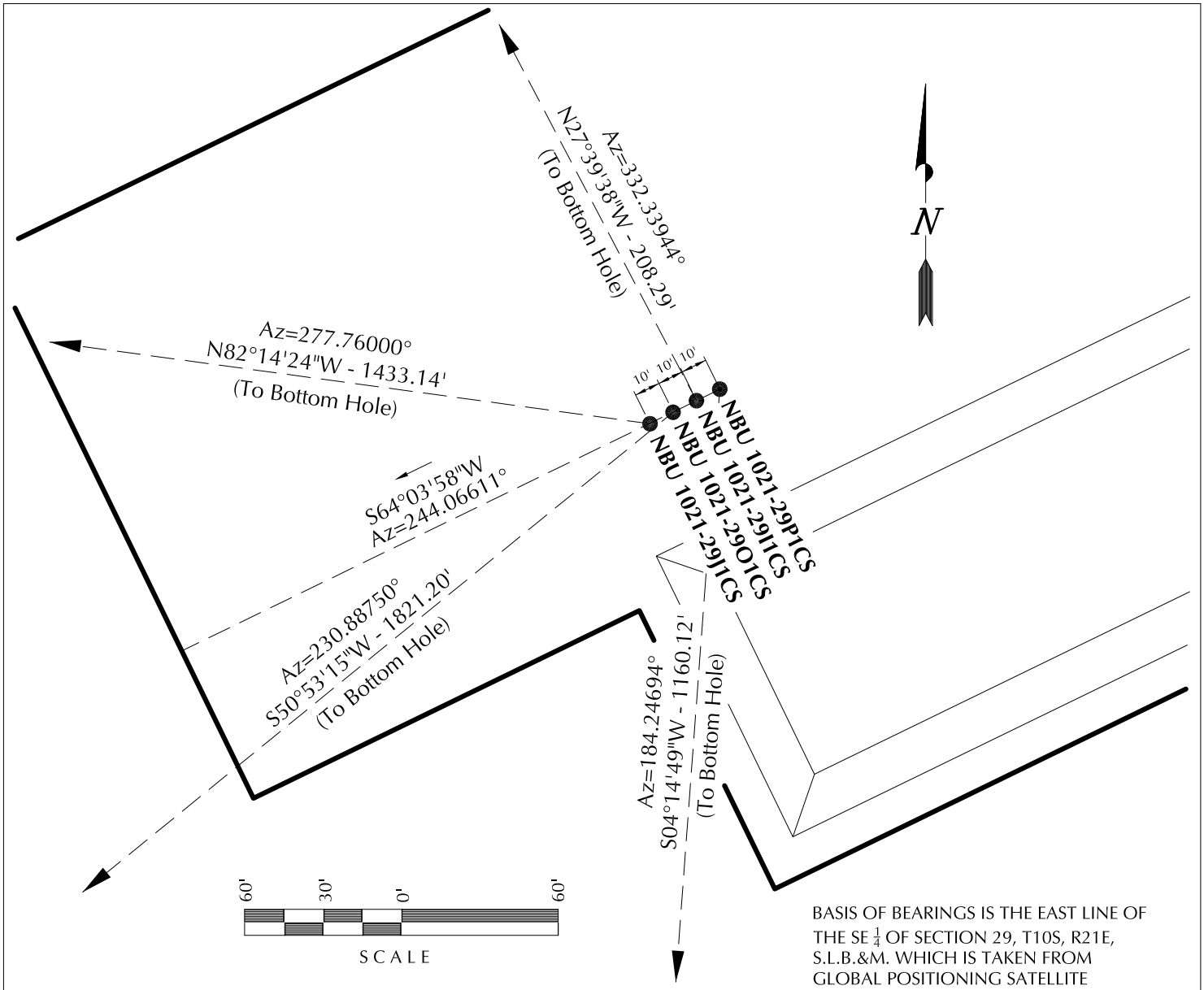
WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 1021-29P1CS	39°55'00.299" 39.916750°	109°34'02.759" 109.567433°	39°55'00.424" 39.916784°	109°34'00.284" 109.566745°	1993' FSL 400' FEL	39°54'48.868" 39.913574°	109°34'03.844" 109.567734°	39°54'48.992" 39.913609°	109°34'01.369" 109.567047°	836' FSL 504' FEL
NBU 1021-29I1CS	39°55'00.255" 39.916738°	109°34'02.874" 109.567465°	39°55'00.380" 39.916772°	109°34'00.399" 109.566777°	1988' FSL 409' FEL	39°55'02.077" 39.917244°	109°34'04.118" 109.567810°	39°55'02.202" 39.917278°	109°34'01.642" 109.567123°	2173' FSL 503' FEL
NBU 1021-29O1CS	39°55'00.211" 39.916725°	109°34'02.989" 109.567497°	39°55'00.336" 39.916760°	109°34'00.514" 109.566809°	1984' FSL 418' FEL	39°54'48.843" 39.913568°	109°34'21.102" 109.572528°	39°54'48.968" 39.913602°	109°34'18.627" 109.571841°	837' FSL 1849' FEL
NBU 1021-29J1CS	39°55'00.167" 39.916713°	109°34'03.103" 109.567529°	39°55'00.292" 39.916748°	109°34'00.628" 109.566841°	1980' FSL 427' FEL	39°55'02.063" 39.917240°	109°34'21.326" 109.572591°	39°55'02.187" 39.917274°	109°34'18.850" 109.571903°	2175' FSL 1844' FEL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 1021-29P1CS	-1156.9'	-85.9'	NBU 1021-29I1CS	184.5'	-96.7'	NBU 1021-29O1CS	-1148.9'	-1413.1'	NBU 1021-29J1CS	193.5'	-1420.0'



BASIS OF BEARINGS IS THE EAST LINE OF THE SE $\frac{1}{4}$ OF SECTION 29, T10S, R21E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°53'25"W.

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1021-29I

WELL PAD INTERFERENCE PLAT

WELLS - NBU 1021-29P1CS, NBU 1021-29I1CS, NBU 1021-29O1CS & NBU 1021-29J1CS
LOCATED IN SECTION 29, T10S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 10-29-10	SURVEYED BY: D.J.S.	SHEET NO: 5
DATE DRAWN: 11-08-10	DRAWN BY: B.M.	5 OF 16
SCALE: 1" = 60'	Date Last Revised: 12-14-10 E.M.S.	

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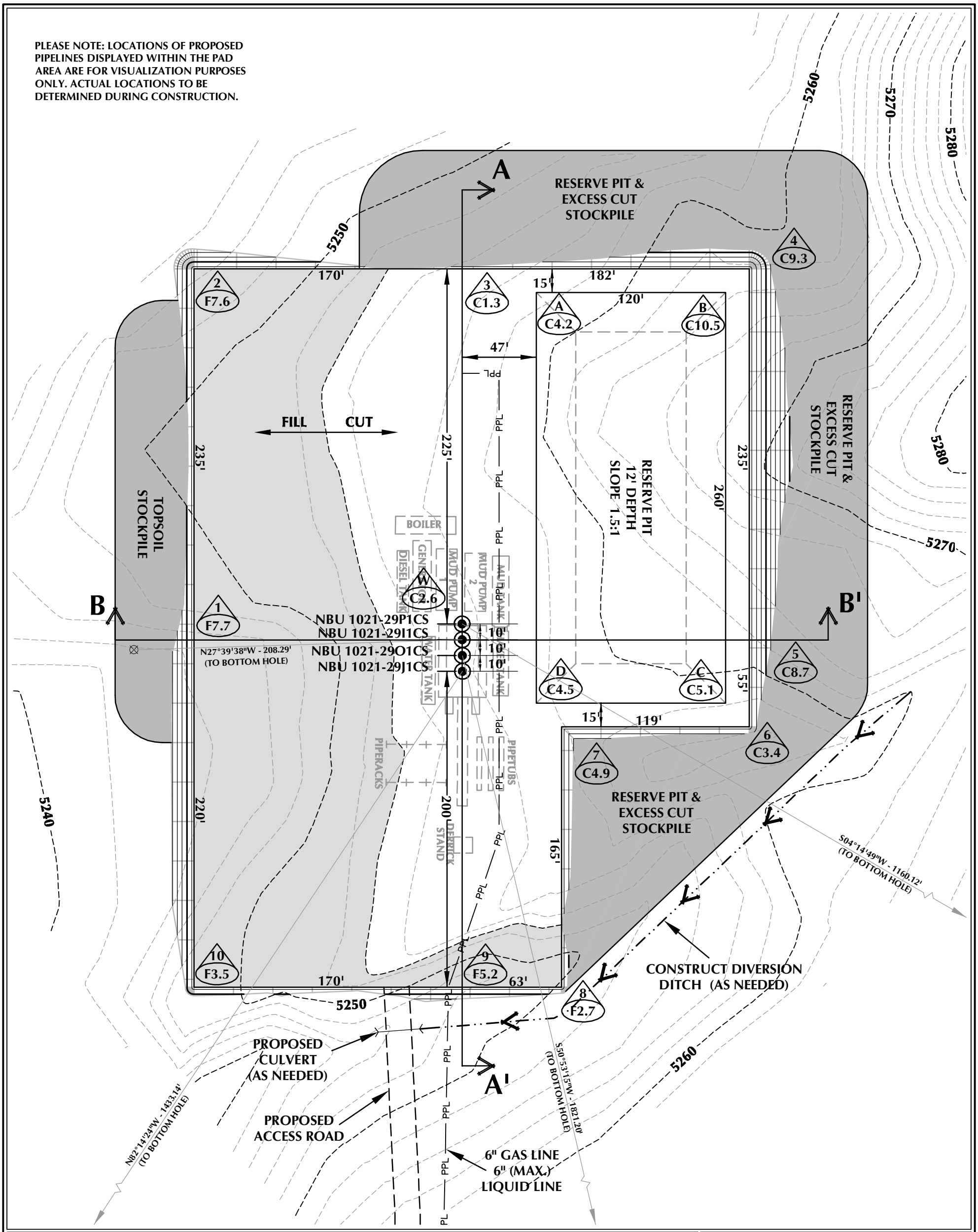
PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.



WELL PAD - NBU 1021-29I DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5255.6'
FINISHED GRADE ELEVATION = 5253.0'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.57 ACRES
TOTAL DAMAGE AREA = 6.28 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1021-29I

WELL PAD - LOCATION LAYOUT
NBU 1021-29P1CS, NBU 1021-29I1CS, NBU 1021-29O1CS & NBU 1021-29J1CS
LOCATED IN SECTION 29, T10S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 17,077 C.Y.
TOTAL FILL FOR WELL PAD = 9,002 C.Y.
TOPSOIL @ 6" DEPTH = 2,883 C.Y.
EXCESS MATERIAL = 8,075 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
+/- 11,020 C.Y.
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 42,290 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60' 1" = 60'
2' CONTOURS

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

SCALE: 1"=60' | DATE: 11/16/10 | SHEET NO: 6 6 OF 16
REVISED:

C:\VANADARKO\2010_60_NBU_1021-28-32_STAKING\DWG\NBU 1021-29I\NBU 1021-29I.dwg, 11/30/2010 3:39:52 PM

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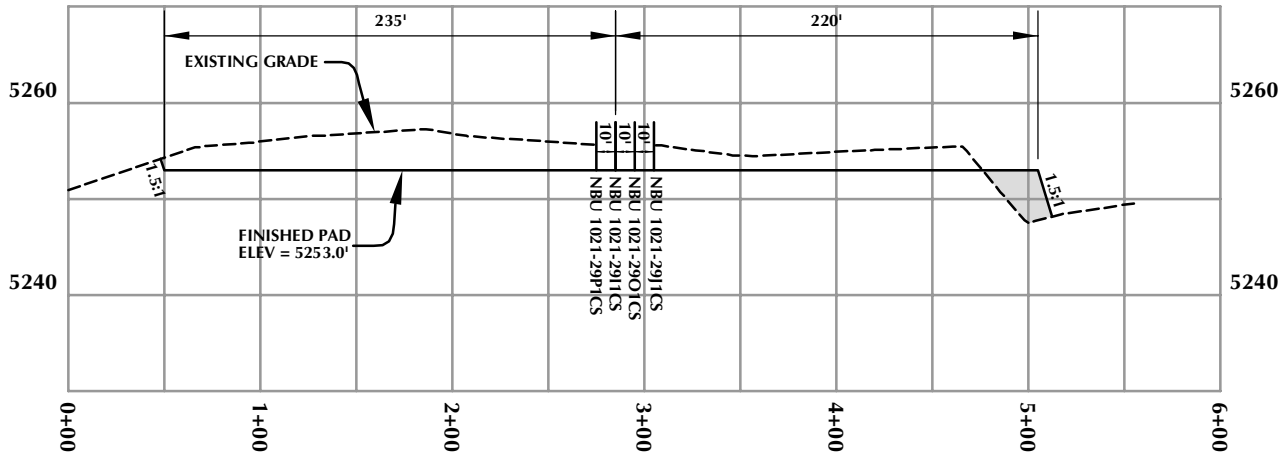
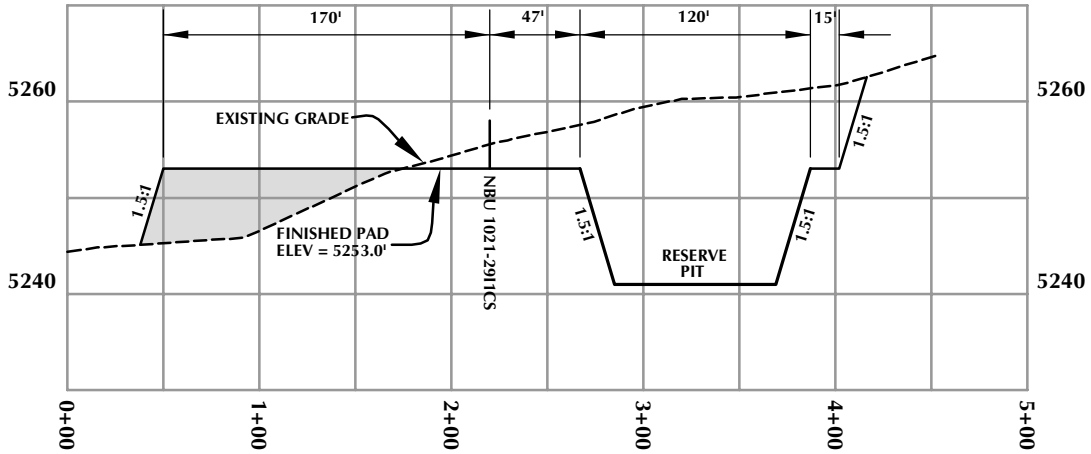


CROSS SECTION A-A'



CROSS SECTION B-B'

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1021-29I

WELL PAD - CROSS SECTIONS
NBU 1021-29P1CS, NBU 1021-29I1CS,
NBU 1021-29O1CS & NBU 1021-29J1CS
LOCATED IN SECTION 29, T10S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609
CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

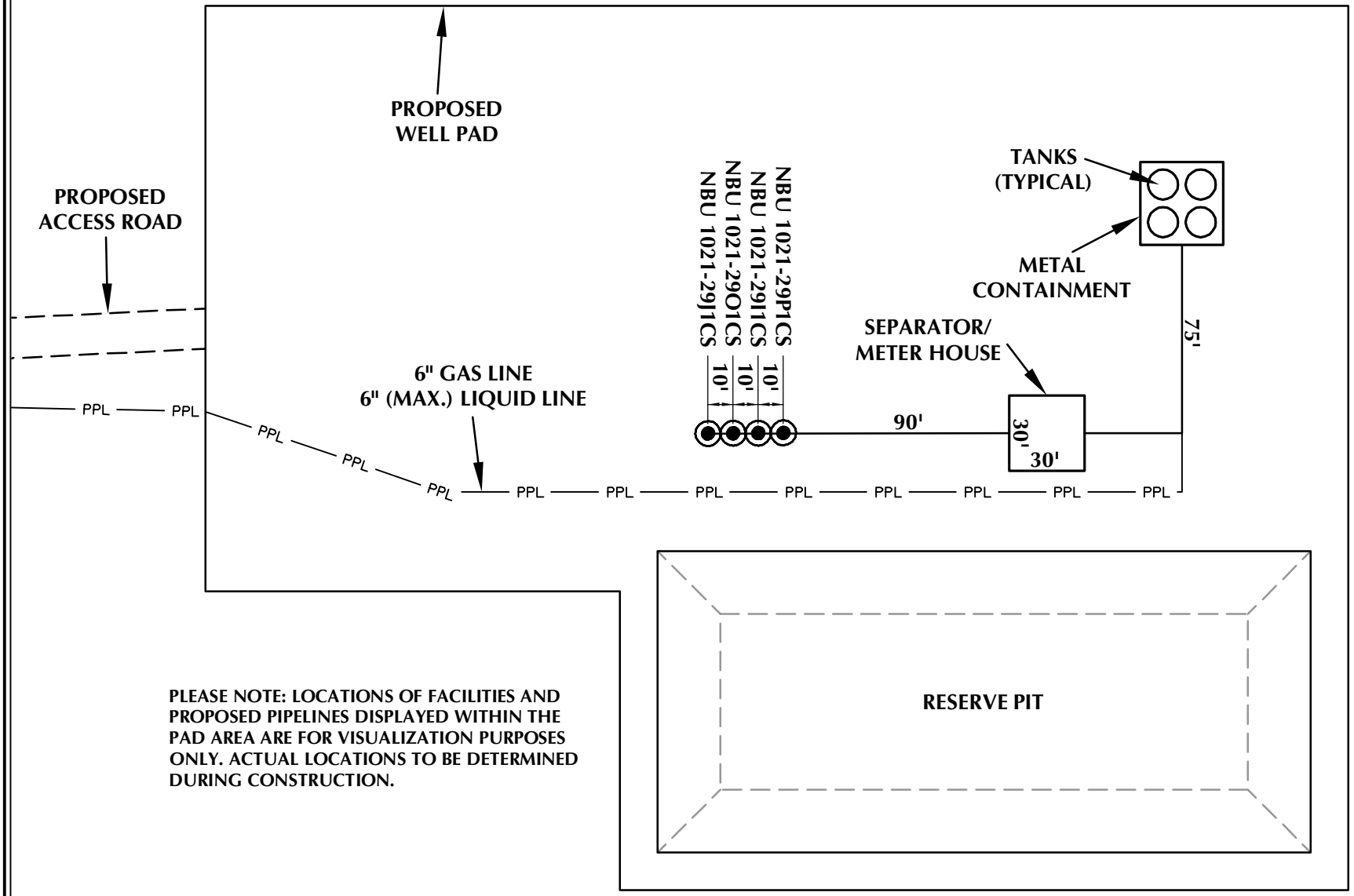
HORIZONTAL 0 50' 100' 1" = 100'
VERTICAL 0 10' 20' 1" = 20'

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=100' | Date: 11/16/10 | SHEET NO: 7 7 OF 16
REVISED:

K:\ANADARKO\2010_60_NBU_1021-28-32_STAKING\DWG\NBU 1021-29I\NBU 1021-29I.dwg, 11/30/2010 3:40:26 PM

RECEIVED: May. 31, 2011



PLEASE NOTE: LOCATIONS OF FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1021-29I

WELL PAD - FACILITIES DIAGRAM
NBU 1021-29P1CS, NBU 1021-29I1CS,
NBU 1021-29O1CS & NBU 1021-29J1CS
LOCATED IN SECTION 29, T10S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609
CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60' 1" = 60'

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=60' | Date: 11/16/10 | SHEET NO: 8 | 8 OF 16
REVISED:

K:\ANADARKO\2010_60_NBU_1021-28-32_STAKING\DWG\NBU 1021-29I\NBU 1021-29I.dwg, 11/30/2010 3:48:39 PM

RECEIVED: May. 31, 2011

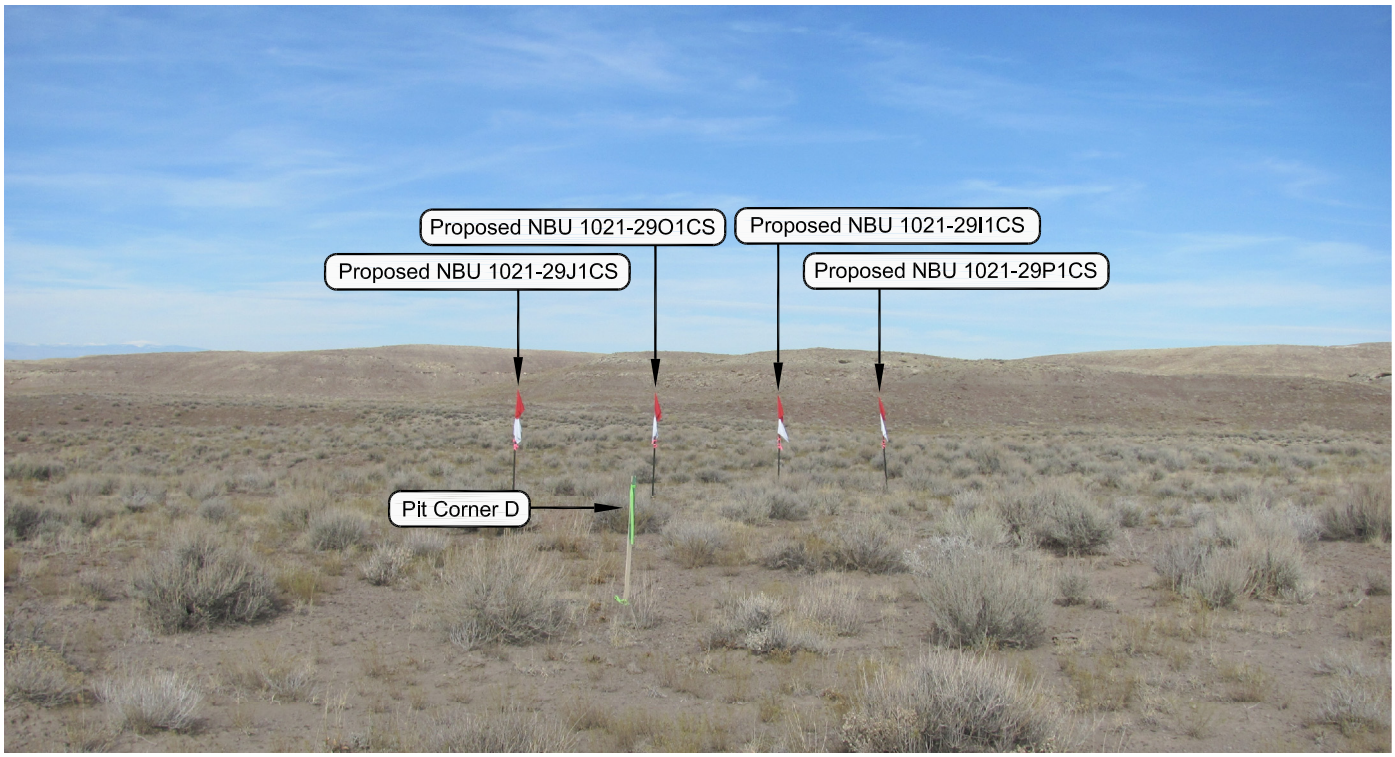


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE **CAMERA ANGLE: NORTHERLY**

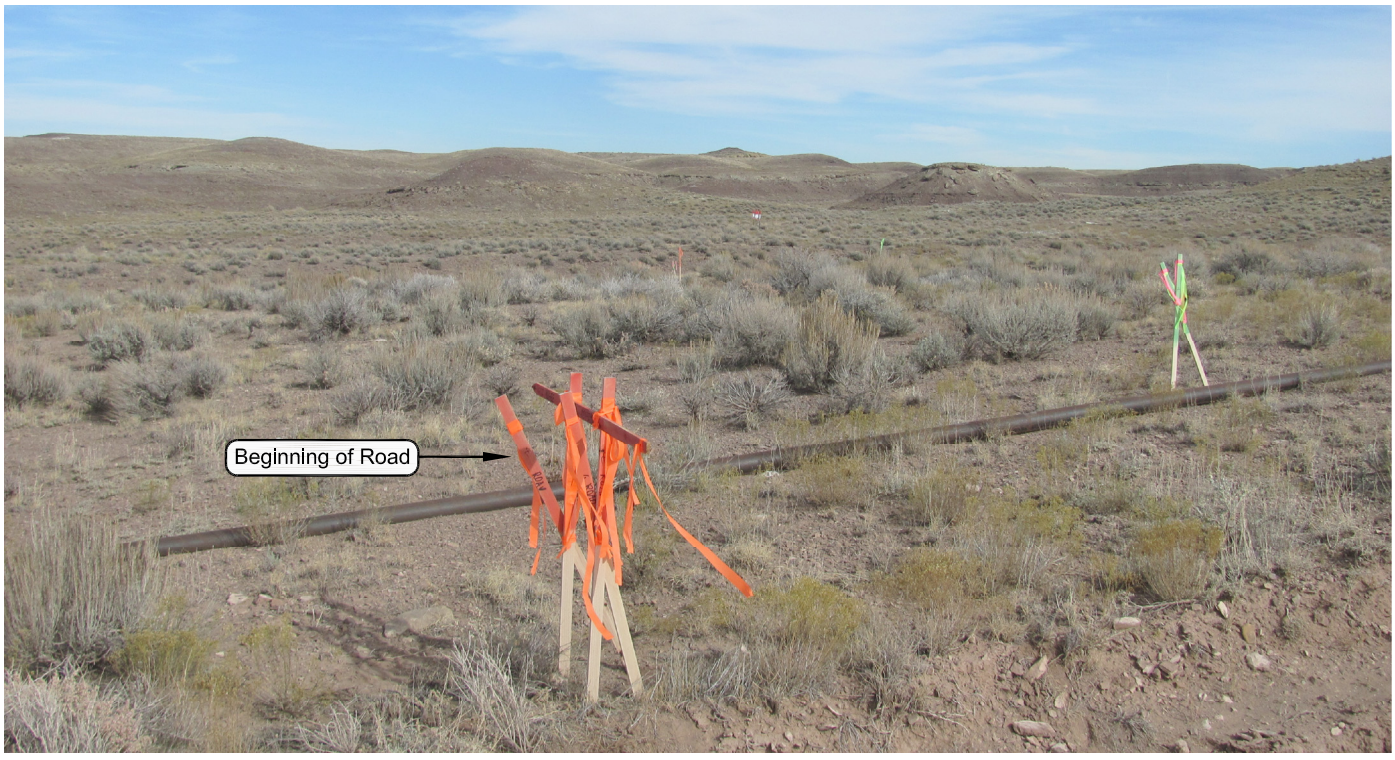


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD **CAMERA ANGLE: NORTHEASTERLY**

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1021-29I

LOCATION PHOTOS
NBU 1021-29P1CS, NBU 1021-29I1CS, NBU 1021-29O1CS & NBU 1021-29J1CS
LOCATED IN SECTION 29, T10S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

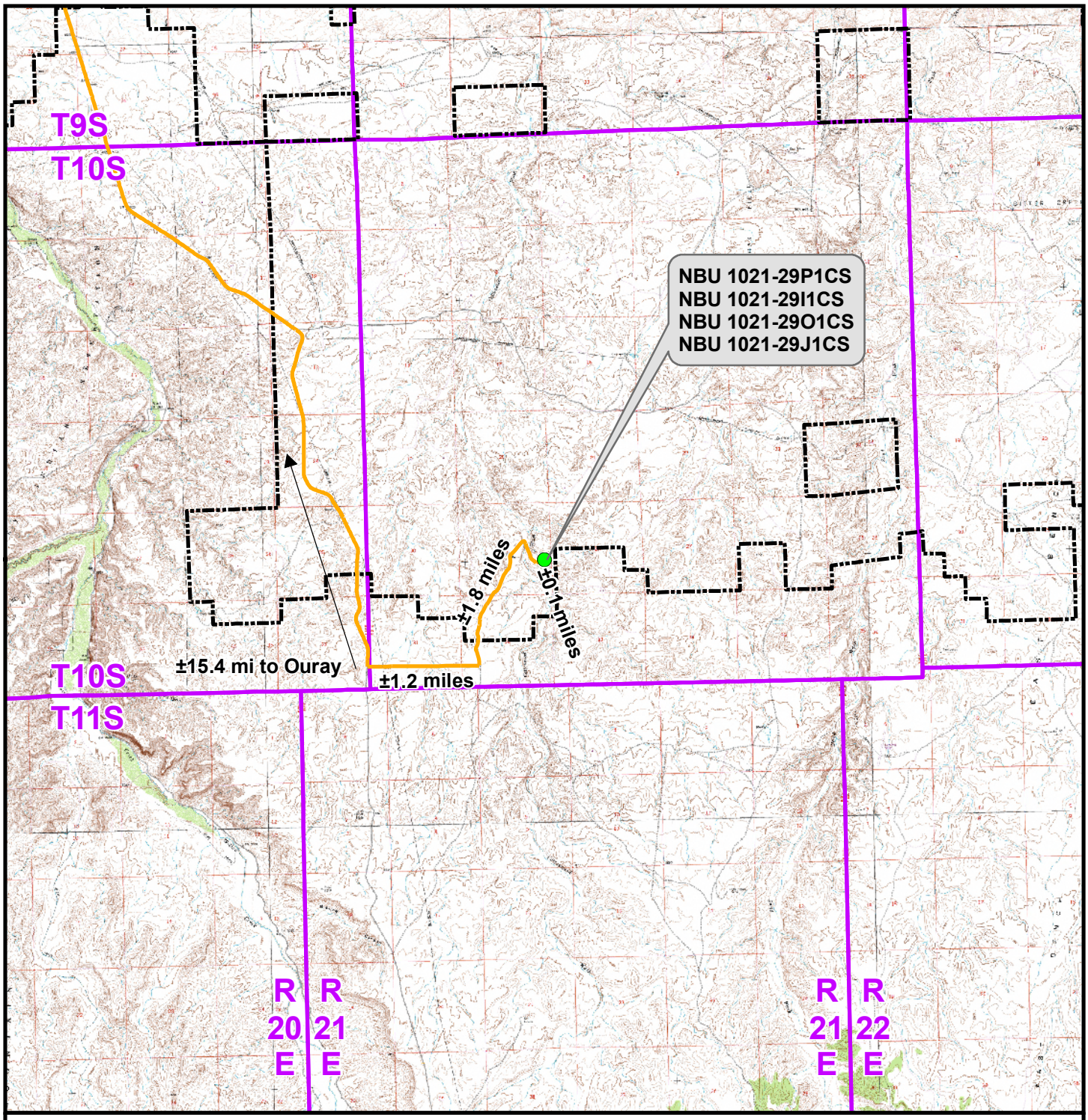
609 CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 10-29-10	PHOTOS TAKEN BY: D.J.S.	SHEET NO: 9
DATE DRAWN: 11-08-10	DRAWN BY: B.M.	9 OF 16
Date Last Revised:		

RECEIVED: May. 31, 2011

API Well Number: 43047515280000



Legend

Distance From Well Pad - NBU 1021-29I To Unit Boundary: ±400ft

Proposed Well Location

Natural Buttes Unit Boundary

Access Route - Proposed

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1021-29I

TOPO A
NBU 1021-29P1CS, NBU 1021-29I1CS, NBU 1021-29O1CS & NBU 1021-29J1CS
LOCATED IN SECTION 29, T10S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH

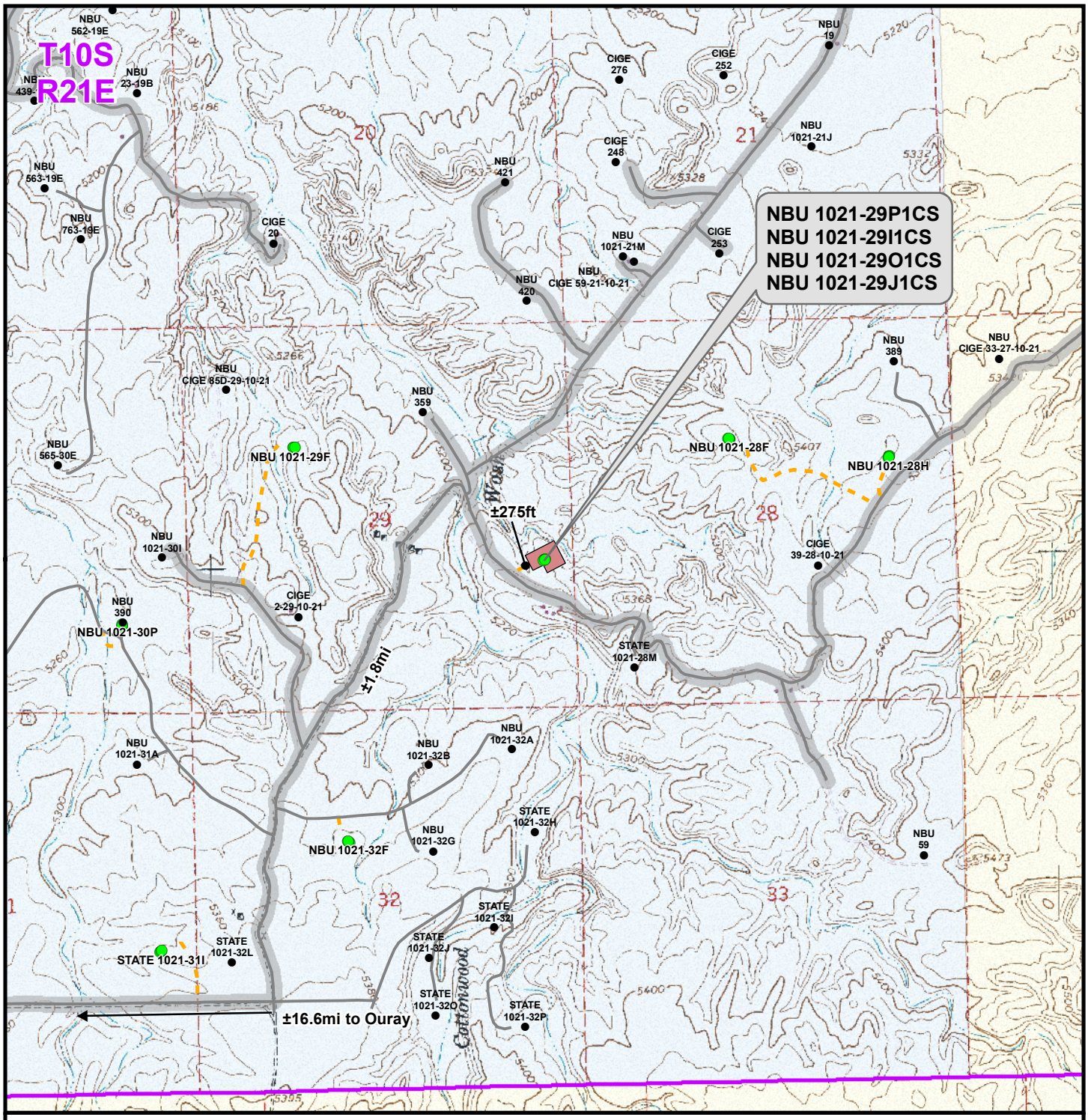
609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1:100,000	NAD83 USP Central	Sheet No: 10 of 16	
Drawn: TL	Date: 16 Nov 2010		
Revised:	Date:		

RECEIVED: May. 31, 2011

API Well Number: 43047515280000



Legend

Total Proposed Road Length: ±275ft

- Well - Proposed
- Well - Existing
- Well Pad
- Road - Proposed
- Road - Existing
- County Road
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1021-29I

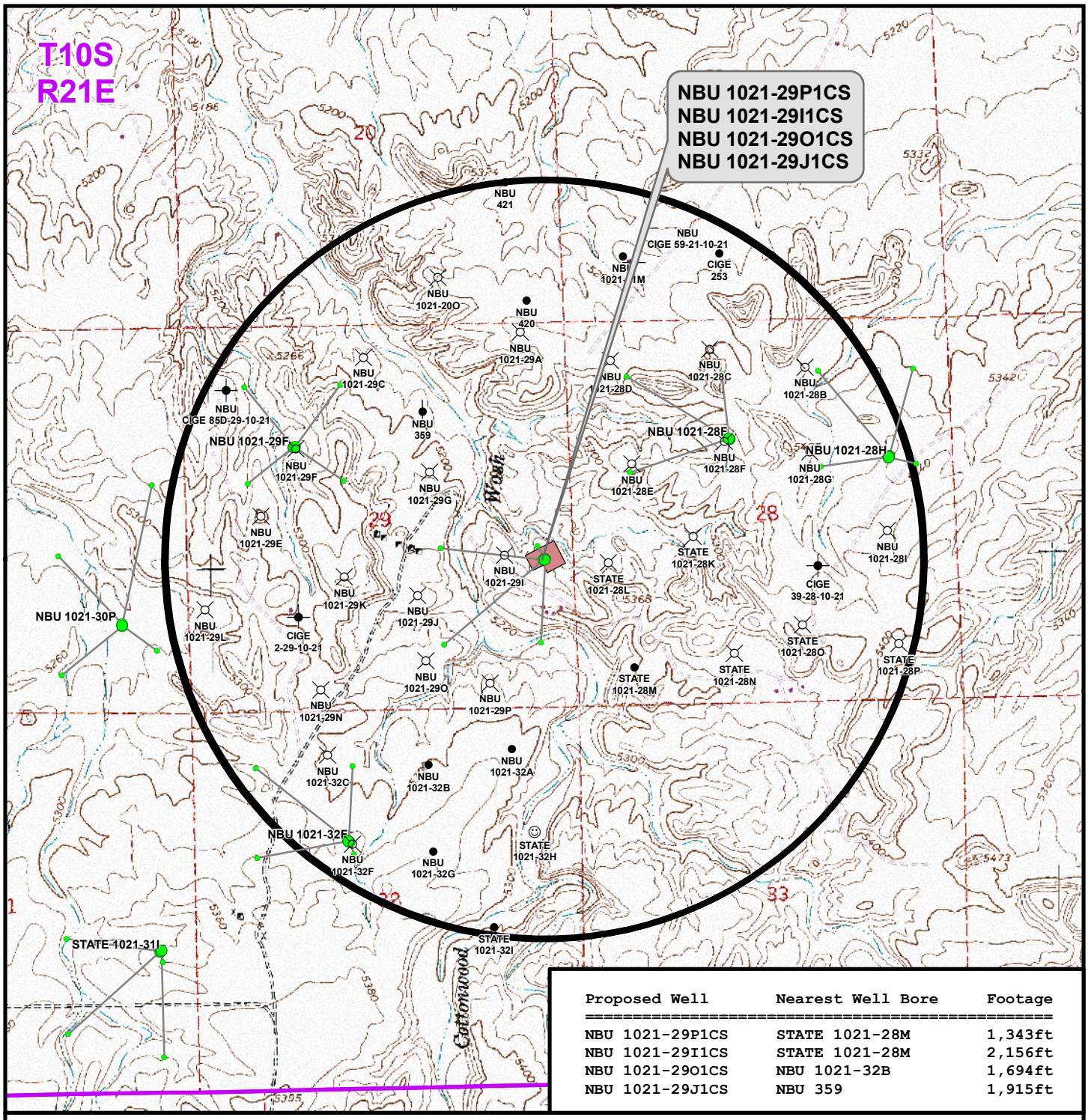
TOPO B
NBU 1021-29P1CS, NBU 1021-29I1CS,
NBU 1021-29O1CS & NBU 1021-29J1CS
LOCATED IN SECTION 29, T10S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:	
Drawn: TL	Date: 16 Nov 2010	11	11 of 16
Revised:	Date:		

RECEIVED: May. 31, 2011



Proposed Well	Nearest Well Bore	Footage
NBU 1021-29P1CS	STATE 1021-28M	1,343ft
NBU 1021-29I1CS	STATE 1021-28M	2,156ft
NBU 1021-29O1CS	NBU 1021-32B	1,694ft
NBU 1021-29J1CS	NBU 359	1,915ft

Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

Legend

- Well - Proposed
- Well Path
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Pad
- Well - 1 Mile Radius

- Producing
- Active
- Spudded (Drilling commenced: Not yet completed)
- Approved permit (APD); not yet spudded
- New Permit (Not yet approved or drilled)
- Inactive
- Drilling Operations Suspended
- Temporarily-Abandoned
- Shut-In
- Plugged and Abandoned
- Location Abandoned
- Dry hole marker, buried
- Returned APD (Unapproved)

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1021-29I

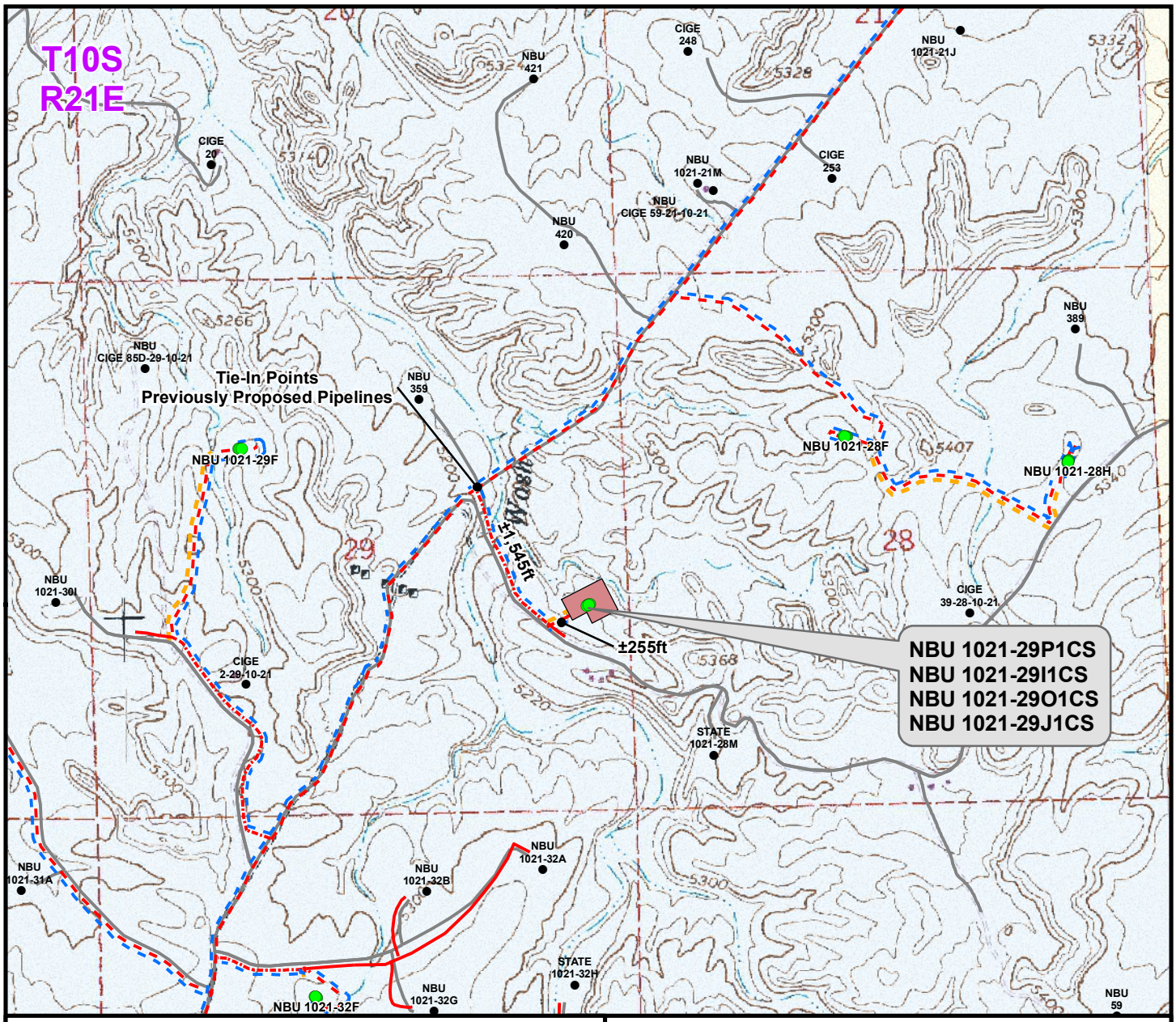
TOPO C
NBU 1021-29P1CS, NBU 1021-29I1CS, NBU 1021-29O1CS & NBU 1021-29J1CS
LOCATED IN SECTION 29, T10S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 12 of 16	
Drawn: TL	Date: 16 Nov 2010		
Revised:	Date:		

RECEIVED: May. 31, 2011



Proposed Liquid Pipeline	Length
Proposed 6" Max. (Meter House to Edge of Pad)	±475ft
Proposed 6" Max. (Edge of Pad to Road Intersection)	±255ft
Proposed 6" Max. (Road Intersection to Previously Proposed Liquid Pipeline)	±1,545ft
TOTAL PROPOSED LIQUID PIPELINE =	±2,275ft

Proposed Gas Pipeline	Length
Proposed 6" (Meter House to Edge of Pad)	±475ft
Proposed 6" (Edge of Pad to Road Intersection)	±255ft
Proposed 12"(Road Intersection to Previously Proposed 16" Gas Pipeline)	±1,545ft
TOTAL PROPOSED GAS PIPELINE =	±2,275ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1021-29I

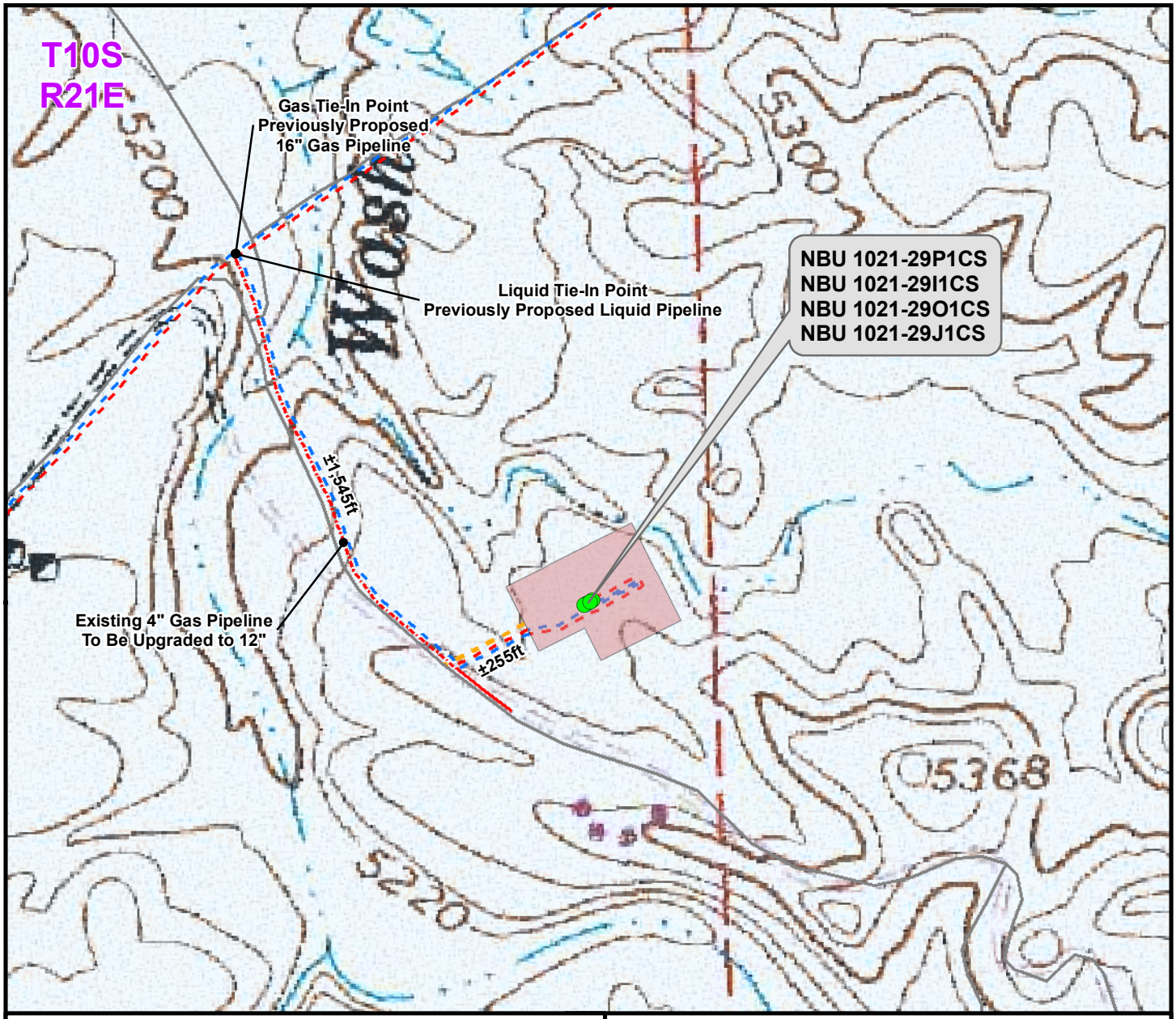
TOPO D
NBU 1021-29P1CS, NBU 1021-29I1CS, NBU 1021-29O1CS & NBU 1021-29J1CS
LOCATED IN SECTION 29, T10S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 13 of 16
Drawn: TL	Date: 16 Nov 2010	
Revised:	Date:	

RECEIVED: May. 31, 2011



Proposed Liquid Pipeline	Length
Proposed 6" Max. (Meter House to Edge of Pad)	±475ft
Proposed 6" Max. (Edge of Pad to Road Intersection)	±255ft
Proposed 6" Max. (Road Intersection to Previously Proposed Liquid Pipeline)	±1,545ft
TOTAL PROPOSED LIQUID PIPELINE =	±2,275ft

Proposed Gas Pipeline	Length
Proposed 6" (Meter House to Edge of Pad)	±475ft
Proposed 6" (Edge of Pad to Road Intersection)	±255ft
Proposed 12" (Road Intersection to Previously Proposed 16" Gas Pipeline)	±1,545ft
TOTAL PROPOSED GAS PIPELINE =	±2,275ft

Legend

Well - Proposed
Well - Existing
Well Pad
Gas Pipeline - Proposed
Gas Pipeline - To Be Upgraded
Gas Pipeline - Existing
Liquid Pipeline - Proposed
Liquid Pipeline - Existing
Road - Proposed
Road - Existing
Bureau of Land Management
Indian Reservation
State
Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1021-29I

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 1021-29P1CS, NBU 1021-29I1CS,
NBU 1021-29O1CS & NBU 1021-29J1CS
LOCATED IN SECTION 29, T10S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

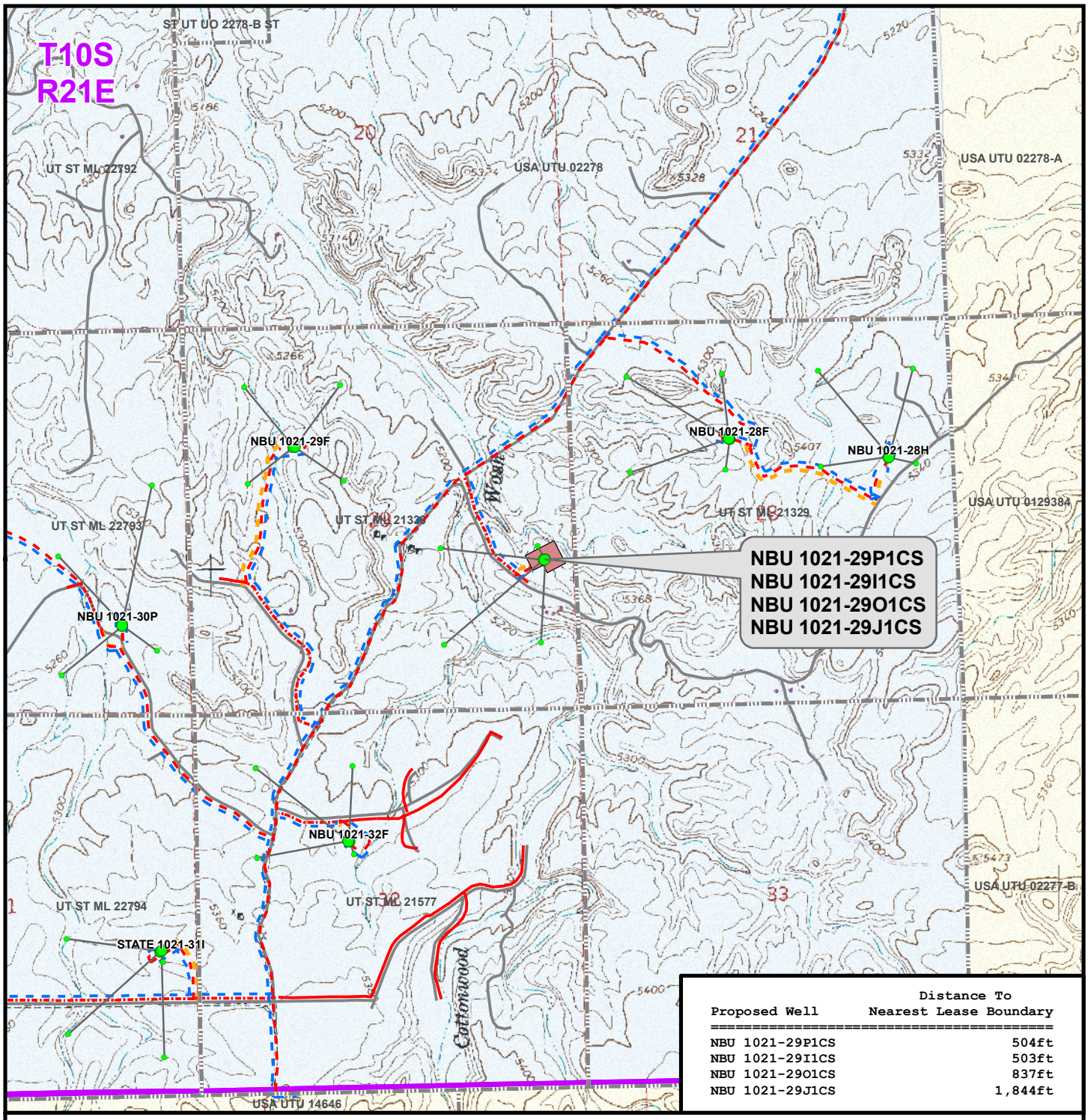
609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 500ft		NAD83 USP Central	Sheet No: 14 of 16
Drawn: TL	Date: 16 Nov 2010		
Revised:	Date:		

RECEIVED: May. 31, 2011

API Well Number: 43047515280000



Proposed Well	Distance To Nearest Lease Boundary
NBU 1021-29P1CS	504ft
NBU 1021-29I1CS	503ft
NBU 1021-29O1CS	837ft
NBU 1021-29J1CS	1,844ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Lease Boundary
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1021-29I

TOPO E
NBU 1021-29P1CS, NBU 1021-29I1CS, NBU 1021-29O1CS & NBU 1021-29J1CS
LOCATED IN SECTION 29, T10S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 15	15 of 16
Drawn: TL	Date: 16 Nov 2010		
Revised:	Date:		

RECEIVED: May. 31, 2011

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 1021-29I
WELLS – NBU 1021-29P1CS, NBU 1021-29I1CS,
NBU 1021-29O1CS & NBU 1021-29J1CS
Section 29, T10S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and Vernal Avenue in Vernal, Utah, proceed in a westerly direction along U.S. Highway 40 approximately 13.9 miles to the junction of State Highway 88. Exit left and proceed in a southerly direction along State Highway 88 approximately 16.8 miles to Ouray, Utah. From Ouray, proceed in a southerly direction along the Seep Ridge Road (County B Road 2810) approximately 15.4 miles to the intersection of a Class D County Road to the east. Exit left and proceed in an easterly direction along the Class D County Road approximately 1.2 miles to the intersection of the Cottonwood Wash Road (Class D County Road) to the north. Exit left and proceed in a northerly then northeasterly then southeasterly direction along the Cottonwood Wash Road approximately 1.8 miles to the proposed access road. Follow road flags in a northeasterly direction approximately 275 feet to the proposed location.

Total distance from Vernal, Utah to the proposed well location is approximately 49.2 miles in a southerly direction.

RECEIVED: May. 31, 2011

API Well Number: 43047515280000

Scientific Drilling
Rocky Mountain Operations

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 1021-29I PAD
Well: NBU 1021-29I1CS
Wellbore: NBU 1021-29I1CS
Design: PLAN #1 1-26-11 RHS

Anadarko E&P Company LP

T M

Azimuths to True North
Magnetic North: 11.14°

Magnetic Field
Strength: 52310.4snT
Dip Angle: 65.80°
Date: 01/26/2011
Model: IGRF2010

WELL DETAILS: NBU 1021-29I1CS

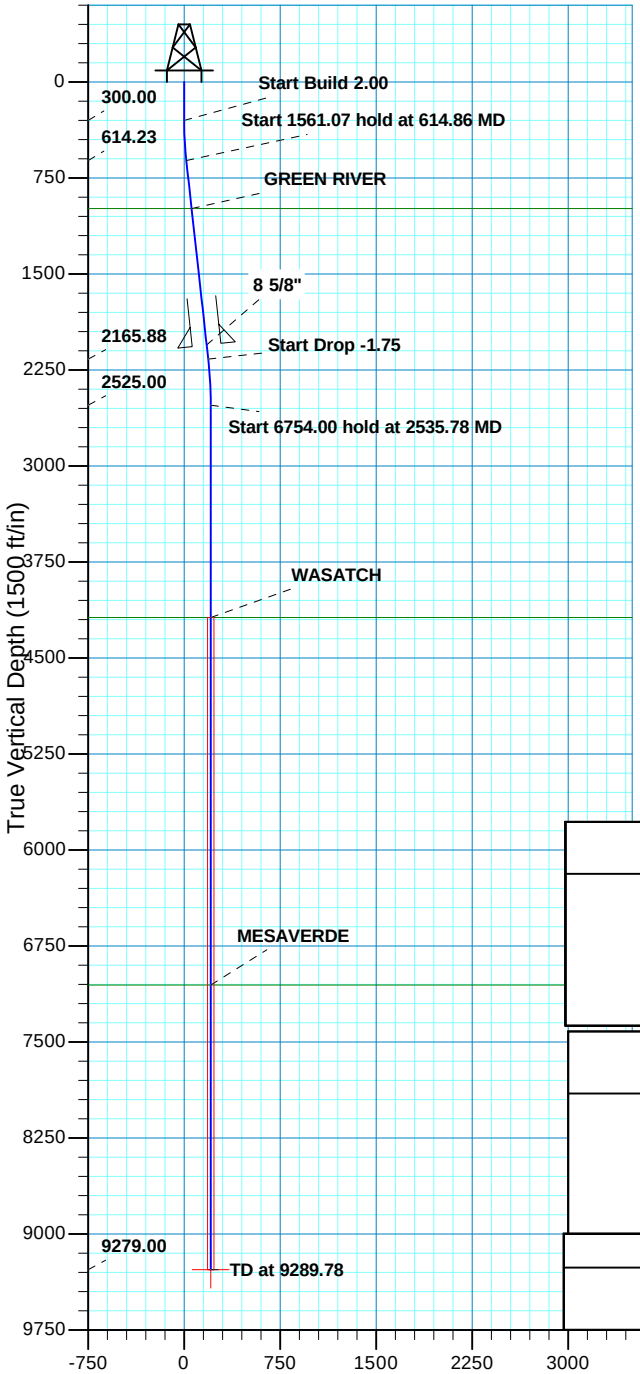
GL 5253 & KB 4'
@ 5257.00ft (ASSUMED)

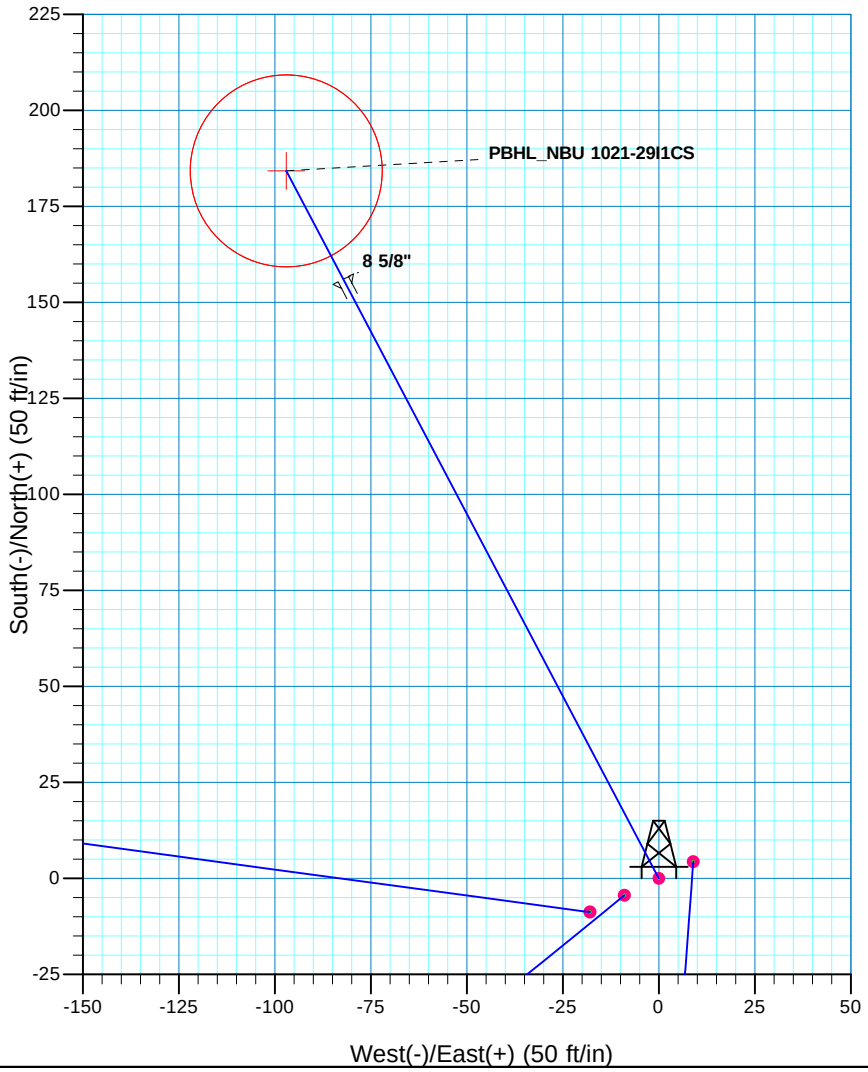
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14498964.14	2042297.03	39° 55' 0.379 N	109° 34' 0.397 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9279.00	184.28	-97.03	14499146.84	2042197.05	39° 55' 2.201 N	109° 34' 1.643 W	Circle (Radius: 25.00)

- plan hits target center





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
614.86	6.30	332.23	614.23	15.29	-8.05	2.00	332.23	17.29	
2175.93	6.30	332.23	2165.88	166.80	-87.83	0.00	0.00	188.51	
2535.78	0.00	0.00	2525.00	184.28	-97.03	1.75	180.00	208.27	
9289.78	0.00	0.00	9279.00	184.28	-97.03	0.00	0.00	208.27	PBHL_NBU 1021-29I1CS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 29 T10S R21E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
989.00	991.91	GREEN RIVER
4184.00	4194.78	WASATCH
7055.00	7065.78	MESAVERDE

CASING DETAILS

TVD	MD	Name	Size
2056.00	2065.39	8 5/8"	8.625

Plan: PLAN #1 1-26-11 RHS (NBU 1021-29I1CS/NBU 1021-29I1CS)

Created By: RobertScott Date: 13:28, January 26 2011

Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
UINTAH_NBU 1021-29I PAD
NBU 1021-29I1CS

NBU 1021-29I1CS

Plan: PLAN #1 1-26-11 RHS

Standard Planning Report

26 January, 2011

Anadarko
E&P Company LP

RECEIVED: May. 31, 2011

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko E&P Company LP

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 1021-29I1CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Site:	UINTAH_NBU 1021-29I PAD	**North Reference:**	True
Well:	NBU 1021-29I1CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1021-29I1CS		
Design:	PLAN #1 1-26-11 RHS		

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site UINTAH_NBU 1021-29I PAD, SECTION 29 T10S R21E

Site Position:		**Northing:**	14,498,964.15 usft	**Latitude:**	39° 55' 0.379 N
From:	Lat/Long	**Easting:**	2,042,297.02 usft	**Longitude:**	109° 34' 0.397 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.92 °

Well NBU 1021-29I1CS, 1988 FSL 409 FEL

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,498,964.15 usft	**Latitude:**	39° 55' 0.379 N
	+E/-W	0.00 ft	**Easting:**	2,042,297.02 usft	**Longitude:**	109° 34' 0.397 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	5,253.00 ft

Wellbore NBU 1021-29I1CS

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	01/26/2011	11.14	65.80	52,310

Design PLAN #1 1-26-11 RHS

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	332.23

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
614.86	6.30	332.23	614.23	15.29	-8.05	2.00	2.00	0.00	332.23	
2,175.93	6.30	332.23	2,165.88	166.80	-87.83	0.00	0.00	0.00	0.00	
2,535.78	0.00	0.00	2,525.00	184.28	-97.03	1.75	-1.75	0.00	180.00	
9,289.78	0.00	0.00	9,279.00	184.28	-97.03	0.00	0.00	0.00	0.00	PBHL_NBU 1021-29I

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko
E&P Company LP

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 1021-29I1CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Site:	UINTAH_NBU 1021-29I PAD	**North Reference:**	True
Well:	NBU 1021-29I1CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1021-29I1CS		
Design:	PLAN #1 1-26-11 RHS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
400.00	2.00	332.23	399.98	1.54	-0.81	1.75	2.00	2.00	0.00
500.00	4.00	332.23	499.84	6.17	-3.25	6.98	2.00	2.00	0.00
600.00	6.00	332.23	599.45	13.89	-7.31	15.69	2.00	2.00	0.00
614.86	6.30	332.23	614.23	15.29	-8.05	17.29	2.00	2.00	0.00
Start 1561.07 hold at 614.86 MD									
700.00	6.30	332.23	698.85	23.56	-12.40	26.62	0.00	0.00	0.00
800.00	6.30	332.23	798.25	33.26	-17.51	37.59	0.00	0.00	0.00
900.00	6.30	332.23	897.65	42.97	-22.63	48.56	0.00	0.00	0.00
991.91	6.30	332.23	989.00	51.89	-27.32	58.64	0.00	0.00	0.00
GREEN RIVER									
1,000.00	6.30	332.23	997.04	52.67	-27.74	59.53	0.00	0.00	0.00
1,100.00	6.30	332.23	1,096.44	62.38	-32.85	70.50	0.00	0.00	0.00
1,200.00	6.30	332.23	1,195.84	72.09	-37.96	81.47	0.00	0.00	0.00
1,300.00	6.30	332.23	1,295.23	81.79	-43.07	92.44	0.00	0.00	0.00
1,400.00	6.30	332.23	1,394.63	91.50	-48.18	103.40	0.00	0.00	0.00
1,500.00	6.30	332.23	1,494.03	101.20	-53.29	114.37	0.00	0.00	0.00
1,600.00	6.30	332.23	1,593.42	110.91	-58.40	125.34	0.00	0.00	0.00
1,700.00	6.30	332.23	1,692.82	120.61	-63.51	136.31	0.00	0.00	0.00
1,800.00	6.30	332.23	1,792.22	130.32	-68.62	147.28	0.00	0.00	0.00
1,900.00	6.30	332.23	1,891.61	140.02	-73.73	158.25	0.00	0.00	0.00
2,000.00	6.30	332.23	1,991.01	149.73	-78.84	169.22	0.00	0.00	0.00
2,065.39	6.30	332.23	2,056.00	156.07	-82.18	176.39	0.00	0.00	0.00
8 5/8"									
2,100.00	6.30	332.23	2,090.41	159.43	-83.95	180.19	0.00	0.00	0.00
2,175.93	6.30	332.23	2,165.88	166.80	-87.83	188.51	0.00	0.00	0.00
Start Drop -1.75									
2,200.00	5.88	332.23	2,189.81	169.06	-89.02	191.07	1.75	-1.75	0.00
2,300.00	4.13	332.23	2,289.43	176.78	-93.08	199.78	1.75	-1.75	0.00
2,400.00	2.38	332.23	2,389.26	181.79	-95.72	205.45	1.75	-1.75	0.00
2,500.00	0.63	332.23	2,489.22	184.11	-96.94	208.07	1.75	-1.75	0.00
2,535.78	0.00	0.00	2,525.00	184.28	-97.03	208.27	1.75	-1.75	77.62
Start 6754.00 hold at 2535.78 MD									
2,600.00	0.00	0.00	2,589.22	184.28	-97.03	208.27	0.00	0.00	0.00
2,700.00	0.00	0.00	2,689.22	184.28	-97.03	208.27	0.00	0.00	0.00
2,800.00	0.00	0.00	2,789.22	184.28	-97.03	208.27	0.00	0.00	0.00
2,900.00	0.00	0.00	2,889.22	184.28	-97.03	208.27	0.00	0.00	0.00
3,000.00	0.00	0.00	2,989.22	184.28	-97.03	208.27	0.00	0.00	0.00
3,100.00	0.00	0.00	3,089.22	184.28	-97.03	208.27	0.00	0.00	0.00
3,200.00	0.00	0.00	3,189.22	184.28	-97.03	208.27	0.00	0.00	0.00
3,300.00	0.00	0.00	3,289.22	184.28	-97.03	208.27	0.00	0.00	0.00
3,400.00	0.00	0.00	3,389.22	184.28	-97.03	208.27	0.00	0.00	0.00
3,500.00	0.00	0.00	3,489.22	184.28	-97.03	208.27	0.00	0.00	0.00
3,600.00	0.00	0.00	3,589.22	184.28	-97.03	208.27	0.00	0.00	0.00
3,700.00	0.00	0.00	3,689.22	184.28	-97.03	208.27	0.00	0.00	0.00
3,800.00	0.00	0.00	3,789.22	184.28	-97.03	208.27	0.00	0.00	0.00
3,900.00	0.00	0.00	3,889.22	184.28	-97.03	208.27	0.00	0.00	0.00

Scientific Drilling
Rocky Mountain Operations

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Planning Report

Anadarko E&P Company LP

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 1021-29I1CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Site:	UINTAH_NBU 1021-29I PAD	**North Reference:**	True
Well:	NBU 1021-29I1CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1021-29I1CS		
Design:	PLAN #1 1-26-11 RHS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,000.00	0.00	0.00	3,989.22	184.28	-97.03	208.27	0.00	0.00	0.00
4,100.00	0.00	0.00	4,089.22	184.28	-97.03	208.27	0.00	0.00	0.00
4,194.78	0.00	0.00	4,184.00	184.28	-97.03	208.27	0.00	0.00	0.00
WASATCH									
4,200.00	0.00	0.00	4,189.22	184.28	-97.03	208.27	0.00	0.00	0.00
4,300.00	0.00	0.00	4,289.22	184.28	-97.03	208.27	0.00	0.00	0.00
4,400.00	0.00	0.00	4,389.22	184.28	-97.03	208.27	0.00	0.00	0.00
4,500.00	0.00	0.00	4,489.22	184.28	-97.03	208.27	0.00	0.00	0.00
4,600.00	0.00	0.00	4,589.22	184.28	-97.03	208.27	0.00	0.00	0.00
4,700.00	0.00	0.00	4,689.22	184.28	-97.03	208.27	0.00	0.00	0.00
4,800.00	0.00	0.00	4,789.22	184.28	-97.03	208.27	0.00	0.00	0.00
4,900.00	0.00	0.00	4,889.22	184.28	-97.03	208.27	0.00	0.00	0.00
5,000.00	0.00	0.00	4,989.22	184.28	-97.03	208.27	0.00	0.00	0.00
5,100.00	0.00	0.00	5,089.22	184.28	-97.03	208.27	0.00	0.00	0.00
5,200.00	0.00	0.00	5,189.22	184.28	-97.03	208.27	0.00	0.00	0.00
5,300.00	0.00	0.00	5,289.22	184.28	-97.03	208.27	0.00	0.00	0.00
5,400.00	0.00	0.00	5,389.22	184.28	-97.03	208.27	0.00	0.00	0.00
5,500.00	0.00	0.00	5,489.22	184.28	-97.03	208.27	0.00	0.00	0.00
5,600.00	0.00	0.00	5,589.22	184.28	-97.03	208.27	0.00	0.00	0.00
5,700.00	0.00	0.00	5,689.22	184.28	-97.03	208.27	0.00	0.00	0.00
5,800.00	0.00	0.00	5,789.22	184.28	-97.03	208.27	0.00	0.00	0.00
5,900.00	0.00	0.00	5,889.22	184.28	-97.03	208.27	0.00	0.00	0.00
6,000.00	0.00	0.00	5,989.22	184.28	-97.03	208.27	0.00	0.00	0.00
6,100.00	0.00	0.00	6,089.22	184.28	-97.03	208.27	0.00	0.00	0.00
6,200.00	0.00	0.00	6,189.22	184.28	-97.03	208.27	0.00	0.00	0.00
6,300.00	0.00	0.00	6,289.22	184.28	-97.03	208.27	0.00	0.00	0.00
6,400.00	0.00	0.00	6,389.22	184.28	-97.03	208.27	0.00	0.00	0.00
6,500.00	0.00	0.00	6,489.22	184.28	-97.03	208.27	0.00	0.00	0.00
6,600.00	0.00	0.00	6,589.22	184.28	-97.03	208.27	0.00	0.00	0.00
6,700.00	0.00	0.00	6,689.22	184.28	-97.03	208.27	0.00	0.00	0.00
6,800.00	0.00	0.00	6,789.22	184.28	-97.03	208.27	0.00	0.00	0.00
6,900.00	0.00	0.00	6,889.22	184.28	-97.03	208.27	0.00	0.00	0.00
7,000.00	0.00	0.00	6,989.22	184.28	-97.03	208.27	0.00	0.00	0.00
7,065.78	0.00	0.00	7,055.00	184.28	-97.03	208.27	0.00	0.00	0.00
MESAVERDE									
7,100.00	0.00	0.00	7,089.22	184.28	-97.03	208.27	0.00	0.00	0.00
7,200.00	0.00	0.00	7,189.22	184.28	-97.03	208.27	0.00	0.00	0.00
7,300.00	0.00	0.00	7,289.22	184.28	-97.03	208.27	0.00	0.00	0.00
7,400.00	0.00	0.00	7,389.22	184.28	-97.03	208.27	0.00	0.00	0.00
7,500.00	0.00	0.00	7,489.22	184.28	-97.03	208.27	0.00	0.00	0.00
7,600.00	0.00	0.00	7,589.22	184.28	-97.03	208.27	0.00	0.00	0.00
7,700.00	0.00	0.00	7,689.22	184.28	-97.03	208.27	0.00	0.00	0.00
7,800.00	0.00	0.00	7,789.22	184.28	-97.03	208.27	0.00	0.00	0.00
7,900.00	0.00	0.00	7,889.22	184.28	-97.03	208.27	0.00	0.00	0.00
8,000.00	0.00	0.00	7,989.22	184.28	-97.03	208.27	0.00	0.00	0.00
8,100.00	0.00	0.00	8,089.22	184.28	-97.03	208.27	0.00	0.00	0.00
8,200.00	0.00	0.00	8,189.22	184.28	-97.03	208.27	0.00	0.00	0.00
8,300.00	0.00	0.00	8,289.22	184.28	-97.03	208.27	0.00	0.00	0.00
8,400.00	0.00	0.00	8,389.22	184.28	-97.03	208.27	0.00	0.00	0.00
8,500.00	0.00	0.00	8,489.22	184.28	-97.03	208.27	0.00	0.00	0.00
8,600.00	0.00	0.00	8,589.22	184.28	-97.03	208.27	0.00	0.00	0.00
8,700.00	0.00	0.00	8,689.22	184.28	-97.03	208.27	0.00	0.00	0.00

Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
UINTAH_NBU 1021-29I PAD
NBU 1021-29I1CS

NBU 1021-29I1CS

Plan: PLAN #1 1-26-11 RHS

Survey Report - Geographic

26 January, 2011

Anadarko
E&P Company LP

RECEIVED: May. 31, 2011

Scientific Drilling
Rocky Mountain Operations

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Survey Report - Geographic

Anadarko E&P Company LP

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 1021-29I1CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Site:	UINTAH_NBU 1021-29I PAD	**MD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Well:	NBU 1021-29I1CS	**North Reference:**	True
Wellbore:	NBU 1021-29I1CS	**Survey Calculation Method:**	Minimum Curvature
Design:	PLAN #1 1-26-11 RHS	**Database:**	EDM5000-RobertS-Local

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site UINTAH_NBU 1021-29I PAD, SECTION 29 T10S R21E

Site Position:		**Northing:**	14,498,964.15 usft	**Latitude:**	39° 55' 0.379 N
From:	Lat/Long	**Easting:**	2,042,297.02 usft	**Longitude:**	109° 34' 0.397 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.92 °

Well NBU 1021-29I1CS, 1988 FSL 409 FEL

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,498,964.15 usft	**Latitude:**	39° 55' 0.379 N
	+E/-W	0.00 ft	**Easting:**	2,042,297.02 usft	**Longitude:**	109° 34' 0.397 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,253.00 ft

Wellbore NBU 1021-29I1CS

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	01/26/2011	11.14	65.80	52,310

Design PLAN #1 1-26-11 RHS

Audit Notes:

Version:	**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	332.23

Survey Tool Program **Date** 01/26/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	9,289.78	PLAN #1 1-26-11 RHS (NBU 1021-29I1CS	SDI MWD	SDI MWD - Standard ver 1.0.1

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,498,964.15	2,042,297.02	39° 55' 0.379 N	109° 34' 0.397 W
100.00	0.00	0.00	100.00	0.00	0.00	14,498,964.15	2,042,297.02	39° 55' 0.379 N	109° 34' 0.397 W
200.00	0.00	0.00	200.00	0.00	0.00	14,498,964.15	2,042,297.02	39° 55' 0.379 N	109° 34' 0.397 W
300.00	0.00	0.00	300.00	0.00	0.00	14,498,964.15	2,042,297.02	39° 55' 0.379 N	109° 34' 0.397 W
Start Build 2.00									
400.00	2.00	332.23	399.98	1.54	-0.81	14,498,965.68	2,042,296.19	39° 55' 0.394 N	109° 34' 0.408 W
500.00	4.00	332.23	499.84	6.17	-3.25	14,498,970.27	2,042,293.67	39° 55' 0.440 N	109° 34' 0.439 W
600.00	6.00	332.23	599.45	13.89	-7.31	14,498,977.91	2,042,289.49	39° 55' 0.516 N	109° 34' 0.491 W
614.86	6.30	332.23	614.23	15.29	-8.05	14,498,979.31	2,042,288.73	39° 55' 0.530 N	109° 34' 0.501 W
Start 1561.07 hold at 614.86 MD									

Scientific Drilling
Rocky Mountain Operations

SDI

Survey Report - Geographic

Anadarko E&P Company LP

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 1021-29I1CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Site:	UINTAH_NBU 1021-29I PAD	**MD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Well:	NBU 1021-29I1CS	**North Reference:**	True
Wellbore:	NBU 1021-29I1CS	**Survey Calculation Method:**	Minimum Curvature
Design:	PLAN #1 1-26-11 RHS	**Database:**	EDM5000-RobertS-Local

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
700.00	6.30	332.23	698.85	23.56	-12.40	14,498,987.50	2,042,284.24	39° 55' 0.612 N	109° 34' 0.556 W
800.00	6.30	332.23	798.25	33.26	-17.51	14,498,997.12	2,042,278.98	39° 55' 0.708 N	109° 34' 0.622 W
900.00	6.30	332.23	897.65	42.97	-22.63	14,499,006.74	2,042,273.71	39° 55' 0.804 N	109° 34' 0.688 W
991.91	6.30	332.23	989.00	51.89	-27.32	14,499,015.59	2,042,268.87	39° 55' 0.892 N	109° 34' 0.748 W
GREEN RIVER									
1,000.00	6.30	332.23	997.04	52.67	-27.74	14,499,016.37	2,042,268.45	39° 55' 0.900 N	109° 34' 0.753 W
1,100.00	6.30	332.23	1,096.44	62.38	-32.85	14,499,025.99	2,042,263.18	39° 55' 0.996 N	109° 34' 0.819 W
1,200.00	6.30	332.23	1,195.84	72.09	-37.96	14,499,035.61	2,042,257.92	39° 55' 1.092 N	109° 34' 0.884 W
1,300.00	6.30	332.23	1,295.23	81.79	-43.07	14,499,045.23	2,042,252.65	39° 55' 1.188 N	109° 34' 0.950 W
1,400.00	6.30	332.23	1,394.63	91.50	-48.18	14,499,054.86	2,042,247.38	39° 55' 1.284 N	109° 34' 1.016 W
1,500.00	6.30	332.23	1,494.03	101.20	-53.29	14,499,064.48	2,042,242.12	39° 55' 1.380 N	109° 34' 1.081 W
1,600.00	6.30	332.23	1,593.42	110.91	-58.40	14,499,074.10	2,042,236.85	39° 55' 1.475 N	109° 34' 1.147 W
1,700.00	6.30	332.23	1,692.82	120.61	-63.51	14,499,083.72	2,042,231.59	39° 55' 1.571 N	109° 34' 1.212 W
1,800.00	6.30	332.23	1,792.22	130.32	-68.62	14,499,093.34	2,042,226.32	39° 55' 1.667 N	109° 34' 1.278 W
1,900.00	6.30	332.23	1,891.61	140.02	-73.73	14,499,102.97	2,042,221.06	39° 55' 1.763 N	109° 34' 1.344 W
2,000.00	6.30	332.23	1,991.01	149.73	-78.84	14,499,112.59	2,042,215.79	39° 55' 1.859 N	109° 34' 1.409 W
2,065.39	6.30	332.23	2,056.00	156.07	-82.18	14,499,118.88	2,042,212.35	39° 55' 1.922 N	109° 34' 1.452 W
8 5/8"									
2,100.00	6.30	332.23	2,090.41	159.43	-83.95	14,499,122.21	2,042,210.53	39° 55' 1.955 N	109° 34' 1.475 W
2,175.93	6.30	332.23	2,165.88	166.80	-87.83	14,499,129.52	2,042,206.53	39° 55' 2.028 N	109° 34' 1.525 W
Start Drop -1.75									
2,200.00	5.88	332.23	2,189.81	169.06	-89.02	14,499,131.76	2,042,205.30	39° 55' 2.050 N	109° 34' 1.540 W
2,300.00	4.13	332.23	2,289.43	176.78	-93.08	14,499,139.40	2,042,201.12	39° 55' 2.127 N	109° 34' 1.592 W
2,400.00	2.38	332.23	2,389.26	181.79	-95.72	14,499,144.38	2,042,198.39	39° 55' 2.176 N	109° 34' 1.626 W
2,500.00	0.63	332.23	2,489.22	184.11	-96.94	14,499,146.68	2,042,197.14	39° 55' 2.199 N	109° 34' 1.642 W
2,535.78	0.00	0.00	2,525.00	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
Start 6754.00 hold at 2535.78 MD									
2,600.00	0.00	0.00	2,589.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
2,700.00	0.00	0.00	2,689.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
2,800.00	0.00	0.00	2,789.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
2,900.00	0.00	0.00	2,889.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
3,000.00	0.00	0.00	2,989.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
3,100.00	0.00	0.00	3,089.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
3,200.00	0.00	0.00	3,189.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
3,300.00	0.00	0.00	3,289.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
3,400.00	0.00	0.00	3,389.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
3,500.00	0.00	0.00	3,489.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
3,600.00	0.00	0.00	3,589.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
3,700.00	0.00	0.00	3,689.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
3,800.00	0.00	0.00	3,789.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
3,900.00	0.00	0.00	3,889.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
4,000.00	0.00	0.00	3,989.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
4,100.00	0.00	0.00	4,089.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
4,194.78	0.00	0.00	4,184.00	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
WASATCH									
4,200.00	0.00	0.00	4,189.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
4,300.00	0.00	0.00	4,289.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
4,400.00	0.00	0.00	4,389.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
4,500.00	0.00	0.00	4,489.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
4,600.00	0.00	0.00	4,589.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
4,700.00	0.00	0.00	4,689.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
4,800.00	0.00	0.00	4,789.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W

Scientific Drilling
Rocky Mountain Operations

SDI

Survey Report - Geographic

Anadarko E&P Company LP

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 1021-29I1CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Site:	UINTAH_NBU 1021-29I PAD	**MD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Well:	NBU 1021-29I1CS	**North Reference:**	True
Wellbore:	NBU 1021-29I1CS	**Survey Calculation Method:**	Minimum Curvature
Design:	PLAN #1 1-26-11 RHS	**Database:**	EDM5000-RobertS-Local

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,900.00	0.00	0.00	4,889.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
5,000.00	0.00	0.00	4,989.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
5,100.00	0.00	0.00	5,089.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
5,200.00	0.00	0.00	5,189.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
5,300.00	0.00	0.00	5,289.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
5,400.00	0.00	0.00	5,389.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
5,500.00	0.00	0.00	5,489.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
5,600.00	0.00	0.00	5,589.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
5,700.00	0.00	0.00	5,689.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
5,800.00	0.00	0.00	5,789.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
5,900.00	0.00	0.00	5,889.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
6,000.00	0.00	0.00	5,989.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
6,100.00	0.00	0.00	6,089.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
6,200.00	0.00	0.00	6,189.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
6,300.00	0.00	0.00	6,289.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
6,400.00	0.00	0.00	6,389.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
6,500.00	0.00	0.00	6,489.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
6,600.00	0.00	0.00	6,589.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
6,700.00	0.00	0.00	6,689.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
6,800.00	0.00	0.00	6,789.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
6,900.00	0.00	0.00	6,889.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
7,000.00	0.00	0.00	6,989.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
7,065.78	0.00	0.00	7,055.00	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
MESAVERDE									
7,100.00	0.00	0.00	7,089.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
7,200.00	0.00	0.00	7,189.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
7,300.00	0.00	0.00	7,289.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
7,400.00	0.00	0.00	7,389.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
7,500.00	0.00	0.00	7,489.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
7,600.00	0.00	0.00	7,589.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
7,700.00	0.00	0.00	7,689.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
7,800.00	0.00	0.00	7,789.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
7,900.00	0.00	0.00	7,889.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
8,000.00	0.00	0.00	7,989.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
8,100.00	0.00	0.00	8,089.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
8,200.00	0.00	0.00	8,189.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
8,300.00	0.00	0.00	8,289.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
8,400.00	0.00	0.00	8,389.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
8,500.00	0.00	0.00	8,489.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
8,600.00	0.00	0.00	8,589.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
8,700.00	0.00	0.00	8,689.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
8,800.00	0.00	0.00	8,789.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
8,900.00	0.00	0.00	8,889.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
9,000.00	0.00	0.00	8,989.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
9,100.00	0.00	0.00	9,089.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
9,200.00	0.00	0.00	9,189.22	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
9,289.78	0.00	0.00	9,279.00	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W
PBHL_NBU 1021-29I1CS									

Scientific Drilling
Rocky Mountain Operations

SDI

Survey Report - Geographic

Anadarko
E&P Company LP

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 1021-29I1CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Site:	UINTAH_NBU 1021-29I PAD	**MD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Well:	NBU 1021-29I1CS	**North Reference:**	True
Wellbore:	NBU 1021-29I1CS	**Survey Calculation Method:**	Minimum Curvature
Design:	PLAN #1 1-26-11 RHS	**Database:**	EDM5000-RobertS-Local

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 1021-29I1C - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,279.00	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,065.39	2,056.00	8 5/8"	8.625	11.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
991.91	989.00	GREEN RIVER			
4,194.78	4,184.00	WASATCH			
7,065.78	7,055.00	MESAVERDE			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300	300	0	0	Start Build 2.00
615	614	15	-8	Start 1561.07 hold at 614.86 MD
2176	2166	167	-88	Start Drop -1.75
2536	2525	184	-97	Start 6754.00 hold at 2535.78 MD
9290	9279	184	-97	TD at 9289.78

Checked By: _____ Approved By: _____ Date: _____

RECEIVED: May. 31, 2011

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko E&P Company LP

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 1021-29I1CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5253 & KB 4' @ 5257.00ft (ASSUMED)
Site:	UINTAH_NBU 1021-29I PAD	**North Reference:**	True
Well:	NBU 1021-29I1CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1021-29I1CS		
Design:	PLAN #1 1-26-11 RHS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,800.00	0.00	0.00	8,789.22	184.28	-97.03	208.27	0.00	0.00	0.00
8,900.00	0.00	0.00	8,889.22	184.28	-97.03	208.27	0.00	0.00	0.00
9,000.00	0.00	0.00	8,989.22	184.28	-97.03	208.27	0.00	0.00	0.00
9,100.00	0.00	0.00	9,089.22	184.28	-97.03	208.27	0.00	0.00	0.00
9,200.00	0.00	0.00	9,189.22	184.28	-97.03	208.27	0.00	0.00	0.00
9,289.78	0.00	0.00	9,279.00	184.28	-97.03	208.27	0.00	0.00	0.00
PBHL_NBU 1021-29I1CS									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 1021-29I1C - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,279.00	184.28	-97.03	14,499,146.85	2,042,197.04	39° 55' 2.201 N	109° 34' 1.643 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,065.39	2,056.00	8 5/8"	8.625	11.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
991.91	989.00	GREEN RIVER			
4,194.78	4,184.00	WASATCH			
7,065.78	7,055.00	MESAVERDE			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
614.86	614.23	15.29	-8.05	Start 1561.07 hold at 614.86 MD
2,175.93	2,165.88	166.80	-87.83	Start Drop -1.75
2,535.78	2,525.00	184.28	-97.03	Start 6754.00 hold at 2535.78 MD
9,289.78	9,279.00	184.28	-97.03	TD at 9289.78

NBU 1021-29I1CS
Surface: 1,988' FSL 409' FEL (NE/4SE/4)
BHL: 2,173' FSL 503' FEL (NE/4SE/4)

NBU 1021-29J1CS
Surface: 1,980' FSL 427' FEL (NE/4SE/4)
BHL: 2,175' FSL 1,844' FEL (NW/4SE/4)

NBU 1021-29O1CS
Surface: 1,984' FSL 418' FEL (NE/4SE/4)
BHL: 837' FSL 1,849' FEL (SW/4SE/4)

NBU 1021-29P1CS
Surface: 1,993' FSL 400' FEL (NE/4SE/4)
BHL: 836' FSL 504' FEL (SE/4SE/4)

Pad: NBU 1021-29I
Section 29 T10S R21E
Mineral Lease: ML 21330

Uintah County, Utah
Operator: Kerr-McGee Oil & Gas Onshore LP

MULTI-POINT SURFACE USE PLAN of OPERATIONS (SUPO)

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including, but not limited to, APDs/SULAs/ROEs/ROWs and/or easements).

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. Existing Roads:

Existing roads consist of county roads and improved/unimproved lease roads. APC/KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

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Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

Approximately ±275' (0.1 miles) of new road is proposed (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

Where roads are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

Turnouts; major cut and fills; culverts; bridges; gates; cattle guards; low water crossings; or modifications needed to existing infrastructure/facilities were determined at the on-site and, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of each well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) aboveground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Production tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks are not to be used for disposal of liquids from additional sources without prior approval of UDOGM.
Gathering facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is ±2,275' and the individual segments are broken up as follows:

- ±475' (0.1 miles) –New 6" buried gas pipeline from the meter to the edge of the pad.
- ±255' (0.05 miles) –New 6" buried gas pipeline from the edge of pad to the road intersection.
- ±1,545' (0.3 miles) –New 12" buried gas pipeline from the road intersection to the previously proposed 16" gas pipeline.

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The total liquid gathering pipeline distance from the separator to the tie in point is ±2,275' and the individual segments are broken up as follows:

±475' (0.1 miles) –New 6" buried liquid pipeline from the separator to the edge of the pad.
±255' (0.05 miles) –New 6" buried liquid pipeline from the edge of pad to the road intersection.
±1,545' (0.3 miles) –New 6" buried liquid pipeline from the road intersection to the previously proposed liquid pipeline.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. Kerr-McGee requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, Kerr-McGee requests a temporary 45' construction right-of-way and 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. Location and Type of Water Supply:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods of Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E
Ouray #1 SWD in Sec. 1 T9S R21E
NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 33 T9S R21E
NBU 921-34L SWD in Sec. 34 T9S R21E

Drill cuttings and/or fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless otherwise approved, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods (e.g. solidification).

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The reserve and/or fracture stimulation pit will be lined with a synthetic material 20-mil or thicker, The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. Any additional pits necessary to subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, accidental release, or in excess of reportable quantities will be managed according to the notification requirements of UDOGMs “Reporting Oil and Gas Undesirable Events” rule, and, where State wells are participatory to a Federal agreement, according to NTL-3A.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term “hazardous materials” as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations

issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1983 (NAD83) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but are not limited to: re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All

stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by APC/KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and

bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

K. Other Information:

None

M. **Lessee's or Operators' Representative & Certification:**

Danielle Piernot
Regulatory Analyst I
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6156

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot
Danielle Piernot

March 11, 2011
Date

Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779

January 17, 2011

Ms. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 1021-29I1CS
T10S-R21E
Section 29: NESE (Surf), NESE (Bottom)
Surface: 409' FEL, 1988' FSL
Bottom Hole: 503' FEL, 2173' FSL
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

- Kerr-McGee's NBU 1021-29I1CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Robert Spencer
Landman II

RECEIVED: May. 31, 2011

Kerr-McGee Oil & Gas Onshore LP
1999 Broadway, Suite 3700
Denver, CO 80205

January 24, 2011

Mrs. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

RE: NBU 1021-29I1CS
T10S-R21E
Section 29: NESE
Surface: 1988' FSL, 409' FEL
Bottom Hole: 2173' FSL, 503' FEL
Uintah County, Utah

Dear Mrs. Mason:

Kerr-McGee Oil & Gas Onshore LP has submitted a permit to drill the captioned well to test the Wasatch and Mesaverde formations. The well is located within the area covered by Order No. 173-14 and is within an exception location area. The surface location of this well is less than 460' from the unit boundary due to a limited amount of topographically acceptable surface locations. Kerr-McGee owns 100% of the leasehold in the offset lands and has no objection to the exception location.

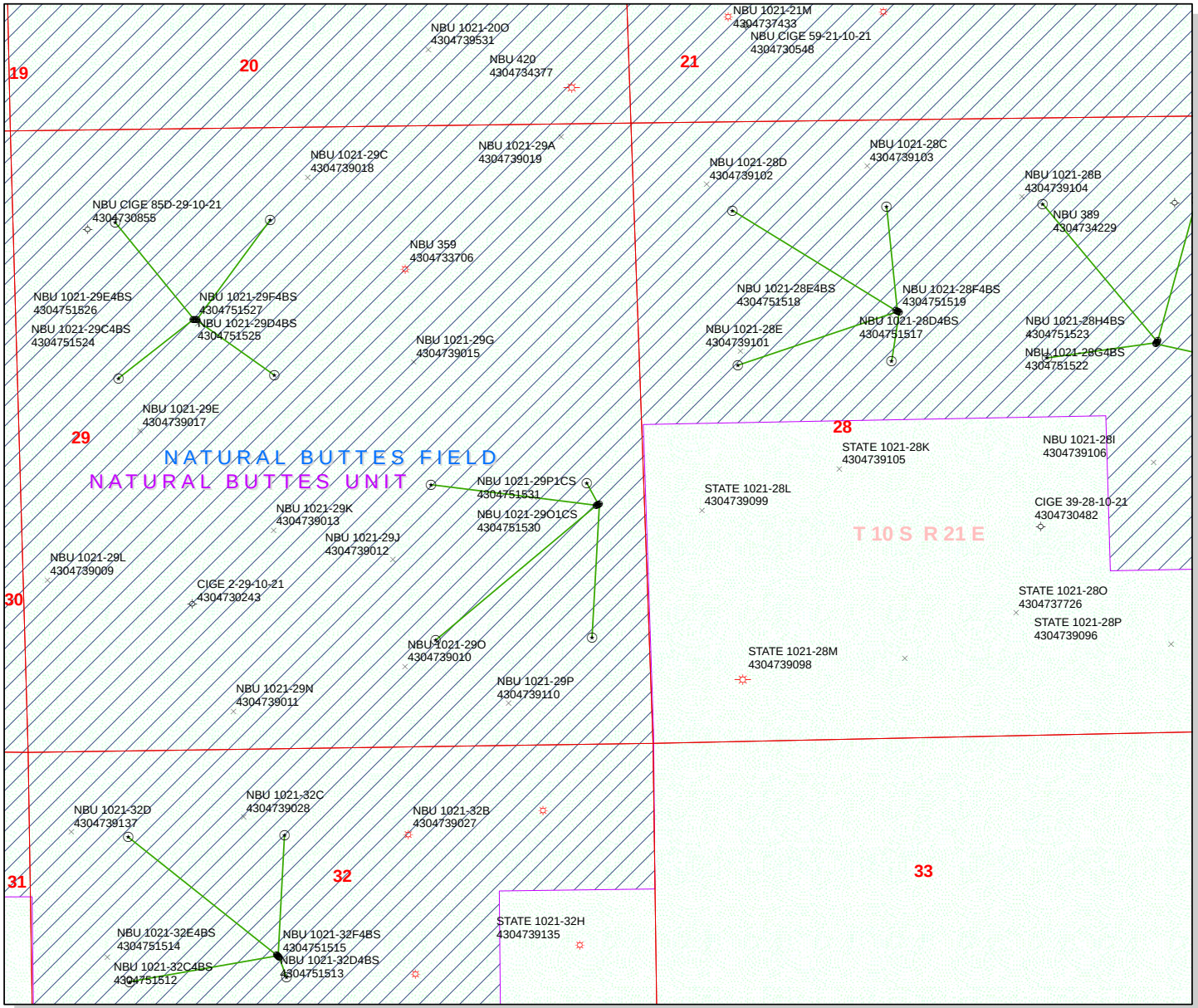
Kerr-McGee requests your approval of this exception location. If you have any questions or require any additional information, please do not hesitate to call me at 720-929-6351.

Sincerely,

Robert T. Spencer
Landman

RECEIVED: May. 31, 2011

API Well Number: 43047515280000



API Number: 4304751528

Well Name: NBU 1021-29I1CS

Township T1.0 . Range R2.1 . Section 29

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units
STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields
STATUS
- Unknown
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- STORAGE
- TERMINATED
- Sections
- Township

Wells Query
Status
- APD - Aproved Permit
- DRL - Spuded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LA - Location Abandoned
- LOC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- RET - Returned APD
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WIW - Water Injection Well
- WSW - Water Supply Well

1,100 550 0 1,100 Feet

1:10,659

RECEIVED: May. 31, 2011

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

March 16, 2011

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2011 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2011 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 1021-30P PAD

43-047-51510	NBU 1021-30O4BS	Sec 30 T10S R21E 1179 FSL 0971 FEL
		BHL Sec 30 T10S R21E 0499 FSL 1831 FEL
43-047-51511	NBU 1021-30P1CS	Sec 30 T10S R21E 1189 FSL 0972 FEL
		BHL Sec 30 T10S R21E 0837 FSL 0499 FEL

NBU 1021-32F PAD

43-047-51512	NBU 1021-32C4BS	Sec 32 T10S R21E 1872 FNL 2121 FWL
		BHL Sec 32 T10S R21E 0825 FNL 2188 FWL
43-047-51513	NBU 1021-32D4BS	Sec 32 T10S R21E 1860 FNL 2105 FWL
		BHL Sec 32 T10S R21E 0825 FNL 0842 FWL
43-047-51514	NBU 1021-32E4BS	Sec 32 T10S R21E 1866 FNL 2113 FWL
		BHL Sec 32 T10S R21E 2072 FNL 0841 FWL
43-047-51515	NBU 1021-32F4BS	Sec 32 T10S R21E 1878 FNL 2129 FWL
		BHL Sec 32 T10S R21E 2053 FNL 2191 FWL

NBU 1021-28F PAD

43-047-51516	NBU 1021-28C4BS	Sec 28 T10S R21E 1730 FNL 2213 FWL
		BHL Sec 28 T10S R21E 0831 FNL 2151 FWL

RECEIVED: May. 31, 2011

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-51517	NBU 1021-28D4BS	Sec 28 T10S R21E 1726 FNL 2204 FWL
		BHL Sec 28 T10S R21E 0834 FNL 0827 FWL
43-047-51518	NBU 1021-28E4BS	Sec 28 T10S R21E 1733 FNL 2222 FWL
		BHL Sec 28 T10S R21E 2168 FNL 0828 FWL
43-047-51519	NBU 1021-28F4BS	Sec 28 T10S R21E 1736 FNL 2232 FWL
		BHL Sec 28 T10S R21E 2163 FNL 2153 FWL
NBU 1021-28H PAD		
43-047-51520	NBU 1021-28A4BS	Sec 28 T10S R21E 2029 FNL 0866 FEL
		BHL Sec 28 T10S R21E 0828 FNL 0496 FEL
43-047-51521	NBU 1021-28B4BS	Sec 28 T10S R21E 2038 FNL 0871 FEL
		BHL Sec 28 T10S R21E 0830 FNL 1820 FEL
43-047-51522	NBU 1021-28G4BS	Sec 28 T10S R21E 2047 FNL 0876 FEL
		BHL Sec 28 T10S R21E 2158 FNL 1822 FEL
43-047-51523	NBU 1021-28H4BS	Sec 28 T10S R21E 2056 FNL 0880 FEL
		BHL Sec 28 T10S R21E 2153 FNL 0497 FEL
NBU 1021-29F PAD		
43-047-51524	NBU 1021-29C4BS	Sec 29 T10S R21E 1685 FNL 1518 FWL
		BHL Sec 29 T10S R21E 0837 FNL 2171 FWL
43-047-51525	NBU 1021-29D4BS	Sec 29 T10S R21E 1687 FNL 1498 FWL
		BHL Sec 29 T10S R21E 0838 FNL 0835 FWL
43-047-51526	NBU 1021-29E4BS	Sec 29 T10S R21E 1689 FNL 1488 FWL
		BHL Sec 29 T10S R21E 2179 FNL 0837 FWL
43-047-51527	NBU 1021-29F4BS	Sec 29 T10S R21E 1686 FNL 1508 FWL
		BHL Sec 29 T10S R21E 2177 FNL 2176 FWL
NBU 1021-29I		
43-047-51528	NBU 1021-29I1CS	Sec 29 T10S R21E 1988 FSL 0409 FEL
		BHL Sec 29 T10S R21E 2173 FSL 0503 FEL
43-047-51529	NBU 1021-29J1CS	Sec 29 T10S R21E 1980 FSL 0427 FEL
		BHL Sec 29 T10S R21E 2175 FSL 1844 FEL
43-047-51530	NBU 1021-29O1CS	Sec 29 T10S R21E 1984 FSL 0418 FEL
		BHL Sec 29 T10S R21E 0837 FSL 1849 FEL
43-047-51531	NBU 1021-29P1CS	Sec 29 T10S R21E 1993 FSL 0400 FEL
		BHL Sec 29 T10S R21E 0836 FSL 0504 FEL

RECEIVED: **May. 31, 2011**

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 1021-30F

43-047-51532 NBU 1021-30C4BS Sec 30 T10S R21E 1954 FNL 1948 FWL
BHL Sec 30 T10S R21E 0826 FNL 2156 FWL

43-047-51533 NBU 1021-30D4BS Sec 30 T10S R21E 1964 FNL 1950 FWL
BHL Sec 30 T10S R21E 0821 FNL 0829 FWL

43-047-51534 NBU 1021-30E4BS Sec 30 T10S R21E 1973 FNL 1951 FWL
BHL Sec 30 T10S R21E 2136 FNL 0830 FWL

43-047-51535 NBU 1021-30F4BS Sec 30 T10S R21E 1983 FNL 1953 FWL
BHL Sec 30 T10S R21E 2150 FNL 2159 FWL

1021-30P PAD

43-047-51536 NBU 1021-30H4BS Sec 30 T10S R21E 1199 FSL 0972 FEL
BHL Sec 30 T10S R21E 2175 FNL 0498 FEL

43-047-51537 NBU 1021-30J1CS Sec 30 T10S R21E 1209 FSL 0973 FEL
BHL Sec 30 T10S R21E 2162 FSL 1828 FEL

This office has no objection to permitting the wells at this time.

Michael L. Coulthard

Digitally signed by Michael L. Coulthard
DN: cn=Michael L. Coulthard, o=Bureau of Land Management, ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US
Date: 2011.03.16 12:35:54 -06'00'

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:3-16-11

RECEIVED: May. 31, 2011

From: Jim Davis
To: Bonner, Ed; Garrison, LaVonne; Hill, Brad; Mason, Diana
CC: Jacobsen, Julie; Lytle, Andy; Piernot, Danielle
Date: 4/28/2011 2:24 PM
Subject: Kerr McGee APD approvals (28)

The following APDs have been approved by SITLA including arch clearance. Paleo clearance is granted with the stipulations noted below.

These wells are approved with out stipulation.
4304751536 NBU 1021-30H4BS
4304751537 NBU 1021-30J1CS
4304751510 NBU 1021-30O4BS
4304751511 NBU 1021-30P1CS
4304751512 NBU 1021-32C4BS
4304751513 NBU 1021-32D4BS
4304751514 NBU 1021-32E4BS
4304751515 NBU 1021-32F4BS

A permitted paleontologist needs to be on-site to observe construction of these wells/ pads.
4304751516 NBU 1021-28C4BS
4304751517 NBU 1021-28D4BS
4304751518 NBU 1021-28E4BS
4304751519 NBU 1021-28F4BS
4304751520 NBU 1021-28A4BS
4304751521 NBU 1021-28B4BS
4304751522 NBU 1021-28G4BS
4304751523 NBU 1021-28H4BS
4304751524 NBU 1021-29C4BS
4304751525 NBU 1021-29D4BS
4304751526 NBU 1021-29E4BS
4304751527 NBU 1021-29F4BS
4304751528 NBU 1021-29I1CS
4304751529 NBU 1021-29J1CS
4304751530 NBU 1021-29O1CS
4304751531 NBU 1021-29P1CS
4304751532 NBU 1021-30C4BS
4304751533 NBU 1021-30D4BS
4304751534 NBU 1021-30E4BS
4304751535 NBU 1021-30F4BS

-Jim Davis

RECEIVED: May. 31, 2011

API Well Number: 43047515280000

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1021-29I1CS 43047515280000

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1021-29I1CS			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2051	9279		
Previous Shoe Setting Depth (TVD)	40	2051		
Max Mud Weight (ppg)	8.4	12.5		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	7780		
Operators Max Anticipated Pressure (psi)	5939	12.3		

Calculations	Surf String	8.625	"	
Max BHP (psi)	.052*Setting Depth*MW=	896		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	650	NO	AIR DRILL
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	445	YES	OK
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	454	NO	Reasonable depth in area
Required Casing/BOPE Test Pressure=		2051	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		40	psi	*Assumes 1psi/ft frac gradient

Calculations	Prod String	4.500	"	
Max BHP (psi)	.052*Setting Depth*MW=	6031		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4918	YES	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3990	YES	OK
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	4441	NO	Reasonable
Required Casing/BOPE Test Pressure=		5000	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		2051	psi	*Assumes 1psi/ft frac gradient

Calculations	String		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
*Max Pressure Allowed @ Previous Casing Shoe=			psi	*Assumes 1psi/ft frac gradient

Calculations	String		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	

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***Max Pressure Allowed @ Previous Casing Shoe=**		psi *Assumes 1psi/ft frac gradient

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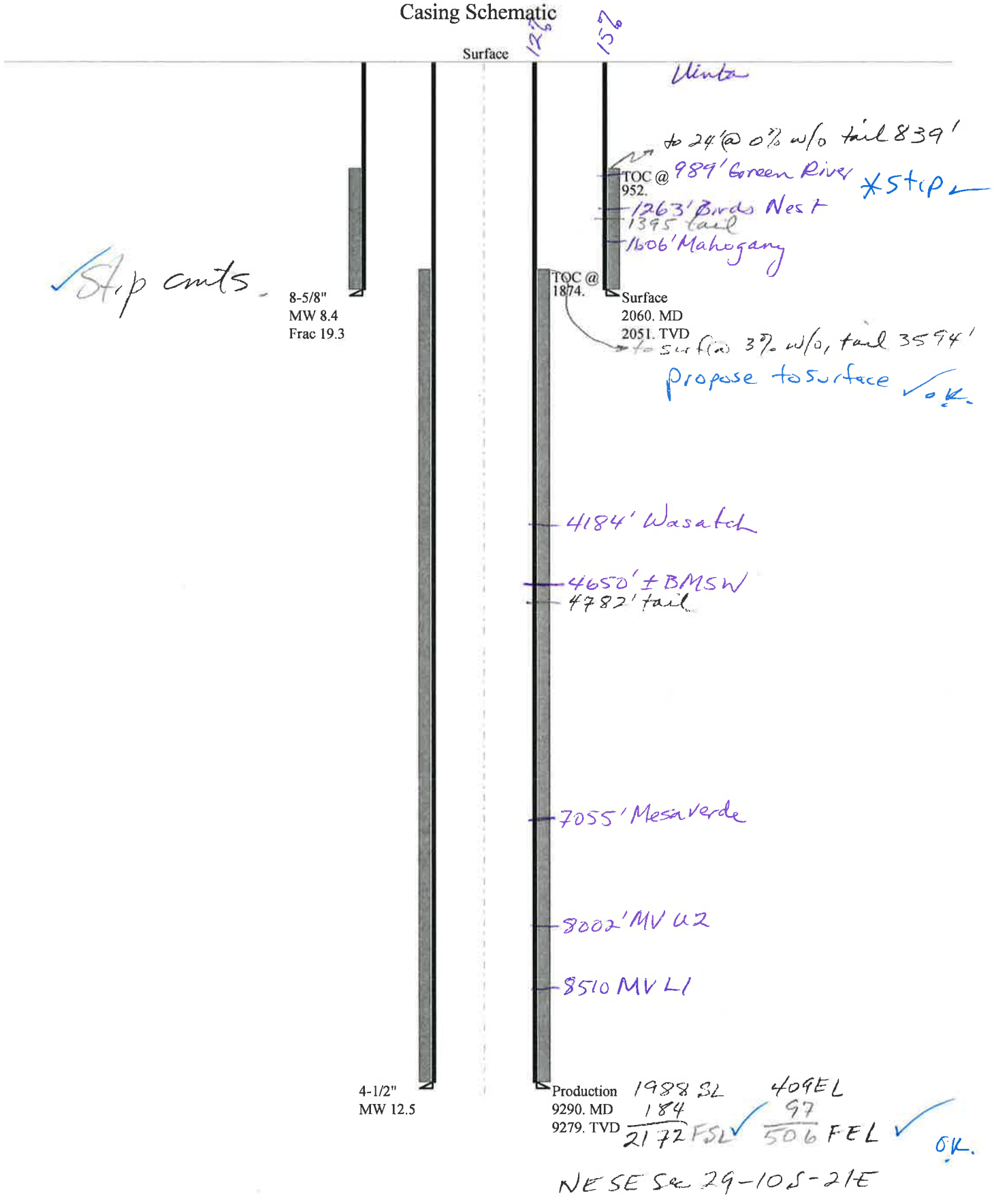
43047515280000 NBU 1021-29I1CS

Casing Schematic



RECEIVED: May. 31, 2011

Well name:	43047515280000 NBU 1021-29I1CS
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.
String type:	Surface
Project ID:	43-047-51528
Location:	UINTAH COUNTY

Design parameters:

Collapse
Mud weight: 8.400 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 1,813 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,059 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 1,804 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 103 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 952 ft

Directional Info - Build & Drop
Kick-off point 300 ft
Departure at shoe: 176 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 6.3 °

Re subsequent strings:
Next setting depth: 9,279 ft
Next mud weight: 12.500 ppg
Next setting BHP: 6,025 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,060 ft
Injection pressure: 2,060 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	2060	8.625	28.00	I-55	LT&C	2051	2060	7.892	81576

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	895	1880	2.101	2059	3390	1.65	57.4	348	6.06 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: May 24,2011
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 2051 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

RECEIVED: May. 31, 2011

Well name:	**43047515280000 NBU 1021-29I1CS**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Production
Project ID:	43-047-51528
Location:	UINTAH COUNTY

Design parameters:

Collapse

Mud weight:	12.500 ppg
Internal fluid density:	1.000 ppg

Burst

Max anticipated surface pressure:	3,984 psi
Internal gradient:	0.220 psi/ft
Calculated BHP	6,025 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor	1.125

Burst:

Design factor	1.00

Tension:

8 Round STC:	1.80 (J)
8 Round LTC:	1.80 (J)
Buttress:	1.60 (J)
Premium:	1.50 (J)
Body yield:	1.60 (B)

Tension is based on air weight.
Neutral point: 7,556 ft

Environment:

H2S considered?	No
Surface temperature:	74 °F
Bottom hole temperature:	204 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	100 ft
Cement top:	1,874 ft

Directional Info - Build & Drop

Kick-off point	300 ft
Departure at shoe:	208 ft
Maximum dogleg:	2 °/100ft
Inclination at shoe:	0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	9290	4.5	11.60	I-80	LT&C	9279	9290	3.875	122628

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5543	6360	1.147	6025	7780	1.29	107.6	212	1.97 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: May 24,2011
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 9279 ft, a mud weight of 12.5 ppg An internal gradient of .052 psi/ft was used for collapse from TD
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

RECEIVED: May. 31, 2011

ON-SITE PREDRILL EVALUATION
Utah Division of Oil, Gas and Mining

Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.				
Well Name	NBU 1021-29I1CS				
API Number	43047515280000	**APD No**	3543	**Field/Unit**	NATURAL BUTTES
Location: 1/4,1/4	NESE **Sec** 29 **Tw** 10.0S **Rng** 21.0E	1988 FSL	409 FEL		
GPS Coord (UTM)	622497 4419297	**Surface Owner**			

Participants

See other comments:

Regional/Local Setting & Topography

The general area is within the Natural Buttes Unit in the middle portion of the Cottonwood Wash Drainage of Uintah County. The area is characterized by rolling hills and benches which are frequently intersected by somewhat gentle draws. The draws are occasionally rimed with steep side hills which have exposed sand stone bedrock cliffs along the rims. Cottonwood Wash is an ephemeral drainage, which drains northerly approximately 6 miles to the White River. No seeps, springs or streams exist in the area. An occasional pond, constructed to store runoff for cattle and livestock exists.

This location is approximately 18.5 road miles southeast of Ouray, Utah and 49.2 road miles south of Vernal, Utah. It is accessed by the Seep Ridge Road then by Uintah County and existing or planned oil field development roads to within 275 feet of the proposed site. New construction will be required from this point.

The proposed NBU 1021-29I pad will contain 4 gas wells all to be directionally drilled. They are the NBU 1021-29PICS, NBU 1021-29I1CS, NBU 1021-2O1CS and NBU 1021-2J1CS. The location is in rolling topography on top of a rounded ridge which extends to the northwest. The south side is somewhat defined and limited by a draw which will be slightly re-channeled to the south and drained by a culvert under the access road. This drainage continues to the northwest into a significant draw. To the northeast is a deep narrow rocky draw which precludes any movement of the pad in this direction. It continues to the northwest joining the other draw. An interior swale near corner 1 will be filled during pad construction. Maximum cut for the pad is 9.3 feet at Corner 4 with a maximum fill is 7.7 feet at Corner 1. Cottonwood Wash is about 1/8 mile to the west.

The selected location appears to be a suitable site for drilling and operating a well, and is the best site in the immediate area

Both the surface and minerals for this location are owned by SITLA.

Surface Use Plan

Current Surface Use
Grazing
Recreational
Wildlfe Habitat

New Road Miles	**Well Pad**	**Src Const Material**	**Surface Formation**
0.05	**Width** 353 **Length** 455	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

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Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Vegetation is a desert shrub type. Vegetation included shadscale, horsebrush, broom snakeweed, sagebrush, curly mesquite grass, bud sage, mat saltbrush, squirrel tail, cheat grass, prickly pear, halogeton and spring annuals.

Antelope, cattle, rabbits, coyotes, and small mammals, birds and raptors.

Soil Type and Characteristics

Moderately deep to shallow sandy loam with some bedrock outcrops.

Erosion Issues Y

The south side is somewhat defined and limited by a draw which will be slightly re-channeled to the south and drained by a culvert under the access road.

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? Y

The south side is somewhat defined and limited by a draw which will be slightly re-channeled to the south and drained by a culvert under the access road.

Berm Required? Y

Erosion Sedimentation Control Required? Y

The south side is somewhat defined and limited by a draw which will be slightly re-channeled to the south and drained by a culvert under the access road.

Paleo Survey Run? Y **Paleo Potental Observed?** **Cultural Survey Run?** Y **Cultural Resources?**

Reserve Pit

Site-Specific Factors		Site Ranking	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	40	1 Sensitivity Level

Characteristics / Requirements

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The reserve pit is planned in an area of cut in the southeast corner of the location. Dimensions are 120' x 260' x 12' deep with 2' of freeboard and a 15' outer bench. Kerr McGee proposed to line the pit with a 30-mil liner and 2 layers of felt.

Closed Loop Mud Required? N **Liner Required?** **Liner Thickness** 30 **Pit Underlayment Required?** Y

Other Observations / Comments

Floyd Bartlett (DOGM), Jim Davis (SITLA), Clay Einerson, Charles Chase, Roger Perry, Duane Holmes, Kenny Gathings, Andy Lytle and Shelia Wopsock (Kerr McGee), Alex Hansen and Ben Williams (UDWR), Mitch Batty, John Slaugh, (Timberline Engineering and Land Surveying).

Floyd Bartlett	3/30/2011
Evaluator	**Date / Time**

RECEIVED: May. 31, 2011

Application for Permit to Drill
Statement of Basis

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
3543	43047515280000	SITLA	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		**Surface Owner-APD**		
Well Name	NBU 1021-29I1CS		**Unit**	NATURAL BUTTES	
Field	NATURAL BUTTES		**Type of Work**	DRILL	
Location	NESE 29 10S 21E S 1988 FSL 409 FEL		GPS Coord (UTM)	622492E 4419295N	

Geologic Statement of Basis

Kerr McGee proposes to set 2,060’ of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 4,650'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 29. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

Brad Hill	4/25/2011
APD Evaluator	**Date / Time**

Surface Statement of Basis

The general area is within the Natural Buttes Unit in the middle portion of the Cottonwood Wash Drainage of Uintah County. The area is characterized by rolling hills and benches which are frequently intersected by somewhat gentle draws. The draws are occasionally rimed with steep side hills which have exposed sand stone bedrock cliffs along the rims. Cottonwood Wash is an ephemeral drainage, which drains northerly approximately 6 miles to the White River. No seeps, springs or streams exist in the area. An occasional pond, constructed to store runoff for cattle and livestock exists.

This location is approximately 18.5 road miles southeast of Ouray, Utah and 49.2 road miles south of Vernal, Utah. It is accessed by the Seep Ridge Road then by Uintah County and existing or planned oil field development roads to within 275 feet of the proposed site. New construction will be required from this point.

The proposed NBU 1021-29I pad will contain 4 gas wells all to be directionally drilled. They are the NBU 1021-29PICS, NBU 1021-29I1CS, NBU 1021-2O1CS and NBU 1021-2J1CS. The location is in rolling topography on top of a rounded ridge which extends to the northwest. The south side is somewhat defined and limited by a draw which will be slightly re-channeled to the south and drained by a culvert under the access road. This drainage continues to the northwest into a significant draw. To the northeast is a deep narrow rocky draw which precludes any movement of the pad in this direction. It continues to the northwest joining the other draw. An interior swale near corner 1 will be filled during pad construction. Maximum cut for the pad is 9.3 feet at Corner 4 with a maximum fill is 7.7 feet at Corner 1. Cottonwood Wash is about 1/8 mile to the west.

The selected location appears to be a suitable site for drilling and operating a well, and is the best site in the immediate area

Both the surface and minerals for this location are owned by SITLA. Jim Davis of SITLA attended the site visit. He had no concerns regarding the proposal except as noted above. A seed mix to be used in reclamation has previously been provided to Kerr McGee by SITLA for this zone. Ben Williams and Alex Hansen of the UDWR also attended. The area is classified as yearlong crucial habitat for antelope but no restrictions were recommended. No other wildlife species are expected to be significantly affected.

RECEIVED: May. 31, 2011

Application for Permit to Drill
Statement of Basis

Floyd Bartlett	3/30/2011
Onsite Evaluator	**Date / Time**

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 30 mils with a double felt subliner shall be properly installed and maintained in the reserve pit.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.
Surface	The reserve pit shall be fenced upon completion of drilling operations.
Surface	The well site shall be bermed to prevent fluids from leaving the pad.

RECEIVED: May. 31, 2011

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 3/11/2011 **API NO. ASSIGNED:** 43047515280000
WELL NAME: NBU 1021-29I1CS
OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156
CONTACT: Danielle Piernot

PROPOSED LOCATION: NESE 29 100S 210E **Permit Tech Review:** ☑
SURFACE: 1988 FSL 0409 FEL **Engineering Review:** ☑
BOTTOM: 2173 FSL 0503 FEL **Geology Review:** ☑
COUNTY: UINTAH
LATITUDE: 39.91679 **LONGITUDE:** -109.56679
UTM SURF EASTINGS: 622492.00 **NORTHINGS:** 4419295.00
FIELD NAME: NATURAL BUTTES
LEASE TYPE: 3 - State
LEASE NUMBER: ML 21330 **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE
SURFACE OWNER: 3 - State **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** STATE/FEE - 22013542
- ☐ **Potash**
- ☑ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☑ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: NATURAL BUTTES

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☑ **Drilling Unit**

Board Cause No: Cause 173-14
Effective Date: 12/2/1999
Siting: Suspends General Siting

- ☑ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
3 - Commingling - ddoucet
5 - Statement of Basis - bhill
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason
25 - Surface Casing - hmacdonald

RECEIVED: May. 31, 2011

GARY R. HERBERT
Governor
GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 1021-29I1CS
API Well Number: 43047515280000
Lease Number: ML 21330
Surface Owner: STATE
Approval Date: 5/31/2011

Issued to:
KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:
Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:
In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

Additional Approvals:
The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan – contact Dustin Doucet
- Significant plug back of the well – contact Dustin Doucet
- Plug and abandonment of the well – contact Dustin Doucet

Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well – contact Carol Daniels
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at http://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program – contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well – contact Dan Jarvis

Contact Information:
The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
  801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
  801-231-8956 - after office hours

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:

For John Rogers
Associate Director, Oil & Gas

SUBMIT AS EMAIL | Print Form

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By ANDY LYTLE Phone Number 720.929.6100
Well Name/Number NBU 1021-29I1CS
Qtr/Qtr NESE Section 29 Township 10S Range 21E
Lease Serial Number ML 21330
API Number 4304751528

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 07/21/2011 08:00 HRS AM ☐ PM ☐

Casing – Please report time casing run starts, not cementing times.

- ☑ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

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DIV. OF OIL, GAS & MINING

Date/Time 07/25/2011 08:00 HRS AM ☐ PM ☐

BOPE

- ☐ Initial BOPE test at surface casing point
- ☐ BOPE test at intermediate casing point
- ☐ 30 day BOPE test
- ☐ Other

Date/Time _____ _____ AM ☐ PM ☐

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT 435.828.0986 OR LOVEL YOUNG AT 435.781.7051

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP
Operator Account Number: N 2995
Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078
Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751531	NBU 1021-29P1CS		NESE	29	10S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	7/21/2011			7/26/11	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL ON 07/21/2011 AT 0930 HRS. BHL = SESE

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751528	NBU 1021-29I1CS		NESE	29	10S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	7/21/2011			7/26/11	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL ON 07/21/2011 AT 1300 HRS. BHL = NESE

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751530	NBU 1021-29O1CS		NESE	29	10S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	7/21/2011			7/26/11	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL ON 07/21/2011 AT 1600 HRS. BHL = SWSE

ACTION CODES:
- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

SHEILA WOPSOCK
Name (Please Print)
Signature
REGULATORY ANALYST
Title
7/22/2011
Date

(5/2000)

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JUL 26 2011
DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML 21330

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1021-29I1CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047515280000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1988 FSL 0409 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 29 Township: 10.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 7/21/2011	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL LOCATION ON 07/21/2011 AT 1300 HRS.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE N/A		**DATE** 7/25/2011

RECEIVED Jul. 25, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: ML 21330

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1021-29I1CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047515280000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1988 FSL 0409 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 29 Township: 10.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 7/27/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU AIR RIG ON JULY 25, 2011. DRILLED SURFACE HOLE TO 2160'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 7/28/2011

RECEIVED Jul. 28, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
ML 21330

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 1021-29I1CS

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047515280000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6515 Ext

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FSL 0409 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NESE Section: 29 Township: 10.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 8/31/2011	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU ROTARY RIG. FINISHED DRILLING FROM 2160' TO 9300' ON AUGUST 30, 2011. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED H&P RIG ON AUGUST 31, 2011 @ 23:59 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE		**DATE**
N/A		9/1/2011

RECEIVED Sep. 01, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML 21330

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1021-29I1CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047515280000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1988 FSL 0409 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 29 Township: 10.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 9/15/2011	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: ACTS/ Pit Refurb

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, LP is requesting to refurb the existing pit on this multi-well pad for completion operations. The refurb pit will be relined per the requirements in the COA of the APD. Upon completion of the wells on this pad, Kerr-McGee is also requesting to utilize this pit as an ACTS staging pit to be utilized for other completion operations in the area. The trucks will unload water into these tanks before the water is placed into the refurbed pit. The purpose of the frac tanks is to collect any hydro-carbons that may have been associated with the other completion operations before releasing into the pit. We plan to keep this pit open for 1 year. During this time the surrounding well location completion fluids will be recycled in this pit and utilized for other frac jobs in the surrounding sections. Thank you.

Approved by the Utah Division of Oil, Gas and Mining
Date: 09/20/2011
By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 9/15/2011

RECEIVED Sep. 15, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: ML 21330

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1021-29I1CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047515280000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1988 FSL 0409 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 29 Township: 10.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 10/21/2011	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 10/21/2011 AT 1345 HRS. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE N/A		**DATE** 10/25/2011

RECEIVED Oct. 25, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: ML 21330
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT or CA AGREEMENT NAME: UTU63047A
8. WELL NAME and NUMBER: NBU 1021-29I1CS
9. API NUMBER: 4304751528
10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ DRY ☐ OTHER
b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER
2. NAME OF OPERATOR: KERR MCGEE OIL & GAS ONSHORE, L.P.
3. ADDRESS OF OPERATOR: P.O.BOX 173779 CITY DENVER STATE CO ZIP 80217 PHONE NUMBER: (720) 929-6100
4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: NESE 1988 FSL 409 FEL S29,T10S,R21E
AT TOP PRODUCING INTERVAL REPORTED BELOW: NESE 2194 FSL 526 FEL S29,T10S,R21E
AT TOTAL DEPTH: NESE 2165 FSL 507 FEL S29,T10S,R21E BHL rvcd by UTSO
11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NESE 29 10S 21E S
12. COUNTY: UINTAH 13. STATE: UTAH

14. DATE SPUDDED: 7/21/2011
15. DATE T.D. REACHED: 8/30/2011
16. DATE COMPLETED: 10/21/2011 ABANDONED ☐ READY TO PRODUCE ☑
17. ELEVATIONS (DF, RKB, RT, GL): 5253 GL
18. TOTAL DEPTH: MD 9,300 TVD 9,284
19. PLUG BACK T.D.: MD 9,261 TVD 9,245
20. IF MULTIPLE COMPLETIONS, HOW MANY? *
21. DEPTH BRIDGE PLUG SET: MD TVD
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
CBL/GR/CT-RSL/SM-BHV-DSN/SD/ACTR
23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☐ YES ☑ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#	0	40		28			
11"	8 5/8" IJ-55	28#	0	2,150		480		0	
7 7/8"	4 1/2" I-80	11.6#	0	9,304		1,510		1330	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	8,853							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) WASATCH	6,245	6,798		
(B) MESAVERDE	7,296	8,906		
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)		SIZE	NO. HOLES	PERFORATION STATUS
6,245	6,798	0.36	48	Open ☑ Squeezed ☐
7,296	8,906	0.36	120	Open ☑ Squeezed ☐
				Open ☐ Squeezed ☐
				Open ☐ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
6245 - 8906	PUMP 6,424 BBLS SLICK H2O & 135,608 LBS 30/50 OTTAWA SAND
	7 STAGES

29. ENCLOSED ATTACHMENTS:
☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☑ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: PROD

RECEIVED
DEC 05 2011
DIV. OF OIL, GAS & MINING

(5/2000) **(CONTINUED ON BACK)**

31. INITIAL PRODUCTION — **INTERVAL A (As shown in Item #26)**

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
10/21/2011	11/13/2011	24		12	789	105	FLOWING

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
20/64	369	1,029					12	789	105	PROD

INTERVAL B (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.

34. FORMATION (Log) MARKERS:

Name	Top (Measured Depth)
GREEN RIVER	1,000
BIRD'S NEST	1,249
MAHOGANY	1,701
WASATCH	4,231
MESAVERDE	7,129

35. ADDITIONAL REMARKS (Include plugging procedure)

The first 210'of the surface hole was drilled with a 12 ¼" bit. The remainder of surface hole was drilled with an 11" bit. Attached is the chronological well history, perforation report & final survey.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) JAIME SCHARNOWSKE TITLE REGULATORY ANALYST

SIGNATURE Jaime Scharnowske DATE 11/18/2011

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-29I1CS BLUE	Spud Conductor: 7/21/2011	Spud Date: 7/25/2011
Project: UTAH-UINTAH	Site: NBU 1021-29I PAD	Rig Name No: H&P 311/311, PROPETRO 11/11
Event: DRILLING	Start Date: 7/22/2011	End Date: 8/31/2011
Active Datum: RKB @5,154.00usft (above Mean Sea Level)	UWI: NBU 1021-29I1CS	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
7/25/2011	19:00 - 22:00	3.00	DRLSUR	01	C	P		SKID RIG TO WELL #2 NBU 1021-29I1CS
	22:00 - 0:00	2.00	DRLSUR	02	C	P		SPUD WELL 12.25" BIT DRILL F/ 40' - 210'
7/26/2011	0:00 - 3:00	3.00	DRLSUR	06	A	P		TOOH INSTALL DIRECTIONAL TOOLS AND TIH
	3:00 - 17:30	14.50	DRLSUR	02	C	P		DRILL 11" HOLE F/ 210' - 2160' T.D. WOB 20-22 ROT 45-55 DHR 96 AVE ROP 134
	17:30 - 19:00	1.50	DRLSUR	05	C	P		CIRCULATE AND CONDITION HOLE PRIOR TO LDDS
	19:00 - 0:00	5.00	DRLSUR	06	A	P		TOOH LAYING DOWN BREAK DOWN DIRECTIONAL TOOLS FOR INSPECTION BREAK BIT AND MUD MOTOR
7/27/2011	0:00 - 1:00	1.00	DRLSUR	12	A	P		RIG UP TO RUN CASING
	1:00 - 5:00	4.00	DRLSUR	12	C	P		RUN 48 JOINTS 8.625 28# J55 SURFACE CASING SHOE AT 2128' BAFFLE AT 2084'
	5:00 - 7:30	2.50	DRLSUR	12	E	P		TEST LINES TO 2000' PSI, PUMP 140 BBLS OF H20 , PUMP 20 BBLS OF GEL WATER. PUMP 180 (122 BBLS) SX OF 11#, 3.82 YD, 23 GAL SX HI FILL LEAD CEMENT. PUMP 200 SX (41 BBLS) OF 15.8#, 1.15 YD, 5 GAL/SK TAIL CEMENT, DROP PLUG ON FLY AND DISPLACE W/ 137 BBLS OF 8.3# H20, 15BBLS OF LEAD TO SURFACE W/ 500 PSI OF LIFT @ 5 BBLS/MIN. W/ LAND PLUG 1000 PSI AND CHECK FLOAT. FLOAT HELD. PUMP 100 SX OF 4% CALC 15.8# 1.15 YD, 5 GAL/SK CEMENT DOWN 1". CEMENT TO SURFACE. RELEASE RIG @ 0730
	7:30 - 7:30	0.00	DRLSUR					CONDUCTOR CASING: Cond. Depth set:40' Cement sx used:28 SPUD DATE/TIME:7/25/2011 22:00 SURFACE HOLE: Surface From depth:40' Surface To depth:2,160 Total SURFACE hours:16.50 Surface Casing size:8 5/8 # of casing joints ran:48 Casing set MD:2,128.0 # sx of cement:180/200/100 Cement blend (ppg:)11.0/15.8/15.8 Cement yield (ft3/sk):3.82/1.15/1.15 # of bbls to surface:30 Describe cement issues:NONE Describe hole issues:NONE
8/26/2011	1:30 - 3:00	1.50	DRLPRO	01	C	P		SKIK RIG 10'
	3:00 - 3:30	0.50	DRLPRO	01	B	P		CHANGE OUT BAILS TO RIG BAILS
	3:30 - 4:30	1.00	DRLPRO	14	A	P		NIPPLE UP BOP'S
	4:30 - 11:30	7.00	DRLPRO	15	A	P		RU THE TESTER. TEST THE BOP, TIW, IBOP, DART VALVE, BOP VALVES, PIPE RAMS, BLIND RAMS, CHOKE VALVES AND KILL LINE TO 250#/5MIN AND 5000#/10 MIN. TESTED THE ANNULAR TO 2500#,
	11:30 - 12:30	1.00	DRLPRO	06	A	P		CHANGE OUT SAVER SUB GRABBER DIES

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-29I1CS BLUE	Spud Conductor: 7/21/2011	Spud Date: 7/25/2011
Project: UTAH-UINTAH	Site: NBU 1021-29I PAD	Rig Name No: H&P 311/311, PROPETRO 11/11
Event: DRILLING	Start Date: 7/22/2011	End Date: 8/31/2011
Active Datum: RKB @5,154.00usft (above Mean Sea Level)	UWI: NBU 1021-29I1CS	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	12:30 - 14:30	2.00	DRLPRO	06	A	P		CHANGE MOTOR AND REORINTATE MWD TOOLS
	14:30 - 15:30	1.00	DRLPRO	06	A	P		TIH TO 1063'
	15:30 - 16:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	16:00 - 17:00	1.00	DRLPRO	06	A	S		CHANGE OUT JET TO 3-15/3-14
	17:00 - 18:00	1.00	DRLPRO	06	A	P		TIH TO 1980
	17:00 - 19:00	2.00	DRLPRO	06	A	P		TRIP IN TAG CEMENT @ 2030'
	18:00 - 18:30	0.50	DRLPRO	06	A	P		CUT AND SLIP DRILLING LINE
	19:00 - 23:00	4.00	DRLPRO	02	F	P		DRILLED 2030"T/2147',117'/ 4HRS, 29.25'/HR
	23:00 - 0:00	1.00	DRLPRO	02	D			DRILLED2147'T/2322',175'/ 1HRS, 175'/HR WOB/12/25K, MM/125 RPM 45,TD/170 RPM PUMP 1/2 60 SPM, 390 GPM, ON/OFF BOTTOM PUMP PRESS. 650/600. DIFF PRESS. 150-300# ON/OFF BOTTOM TORQUE 1/1K. HOOK LOAD PU/SO/ROT 76/74/72 /VIS 8.4/MW
8/27/2011	0:00 - 17:30	17.50	DRLPRO	02	D	P		DRILLED2322'T/5188",2866'/ 17.5HRS, 163.7'ROP WOB/12/25K, MM/112 RPM 45,TD/157 RPM PUMP 1/2 60 SPM, 537 GPM, ON/OFF BOTTOM PUMP PRESS. 650/600. DIFF PRESS. 150-300# ON/OFF BOTTOM TORQUE 1/1K. HOOK LOAD PU/SO/ROT 125/120/113 25/VIS 8.4/MW DR 2709' 14.18HR ROP 184.7' SL 157' 2.82HR ROP 55.6'
	17:30 - 18:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	18:00 - 0:00	6.00	DRLPRO	02	D	P		DRILLED5188'T/6100",912'/ 6HRS, 152'ROP WOB/12/25K, MM/125 RPM 45,TD/170 RPM PUMP 1/2 60 SPM,537 GPM, ON/OFF BOTTOM PUMP PRESS. 1750/1345. DIFF PRESS. 150-300# ON/OFF BOTTOM TORQUE18/5K. HOOK LOAD PU/SO/ROT 170/128/143 25/VIS 8.4/MW DR 880' 5.83HR ROP 150.9' SL 32' .67HR ROP 47.76'
8/28/2011	0:00 - 17:30	17.50	DRLPRO	02	D	P		DRILLED 6100"T/7484',1384'/ 17.5HRS, 79'ROP WOB/12/25K, MM/125 RPM 45,TD/170 RPM PUMP 1/2 60 SPM,537 GPM, ON/OFF BOTTOM PUMP PRESS. 1750/1345. DIFF PRESS. 150-300# ON/OFF BOTTOM TORQUE18/5K. HOOK LOAD PU/SO/ROT 170/128/143 25/VIS 8.4/MW DRILL1278'/SLIDE 69' SLIDE 5.1%
	17:30 - 18:00	0.50	DRLPRO	07	A	P		RIG SERVICE

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-29I1CS BLUE	Spud Conductor: 7/21/2011	Spud Date: 7/25/2011
Project: UTAH-UINTAH	Site: NBU 1021-29I PAD	Rig Name No: H&P 311/311, PROPETRO 11/11
Event: DRILLING	Start Date: 7/22/2011	End Date: 8/31/2011
Active Datum: RKB @5,154.00usft (above Mean Sea Level)	UWI: NBU 1021-29I1CS	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	18:00 - 0:00	6.00	DRLPRO	02	D	P		DRILLED 7484'T/7900',416'/ 6HRS, 69.3'ROP HOOK LOAD PU/SO/ROT 211/146/170 ON/OFF BOTTOM PUMP PRESS. 2230/2044. ON/OFF BOTTOM TORQUE9/4K. WOB/12/25K, MM/125 RPM 45,TD/170 RPM PUMP 1/2 60 SPM,537 GPM, DIFF PRESS. 150-300# 25/VIS 8.4/MW DRILL396'/SLIDE 20' SLIDE.5%
8/29/2011	0:00 - 17:30	17.50	DRLPRO	02	D	P		DRILLED 7900'T8812/',909'/ 17.5HRS, 50.5'FPH HOOK LOAD PU/SO/ROT 211/146/170 ON/OFF BOTTOM PUMP PRESS. 2230/2044. ON/OFF BOTTOM TORQUE9/4K. WOB/12/25K, MM/125 RPM 45,TD/170 RPM PUMP 1/2 60 SPM,537 GPM, DIFF PRESS. 150-300# 25/VIS 8.4/MW DRILL889'/SLIDE 20' SLIDE2.20%
	17:30 - 18:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	18:00 - 23:30	5.50	DRLPRO	02	D	P		DRILLED 8812'T8962/',150'/ 6HRS, 30'FPH HOOK LOAD PU/SO/ROT 225/160/180 ON/OFF BOTTOM PUMP PRESS. 2080/2310. ON/OFF BOTTOM TORQUE11/8K. WOB/12/30K, MM/125 RPM 50,TD/135 RPM PUMP 1/2 60 SPM,537 GPM, DIFF PRESS. 150-300# 38/VIS 10.4/MW DRILL150'/SLIDE 0' SLIDE 0.0%
	23:30 - 0:00	0.50	DRLPRO	05	C	P		CIRC. AND COND HOLE FOR BIT TRIP
8/30/2011	0:00 - 0:30	0.50	DRLPRO	05	A	P		FINISH CIRCULATING BOTTOMS UP
	0:30 - 1:00	0.50	DRLPRO	05	J	P		CHECK FOR FLOW
	1:00 - 4:30	3.50	DRLPRO	06	A	P		TOOH FOR BIT # 2
	4:30 - 10:00	5.50	DRLPRO	06	J	P		LAY DOWN MWD TOOLS, CHANGE OUT MUD MOTORS TO .16 STRAIGHT, CHANGE OUT BIT.
	10:00 - 13:30	3.50	DRLPRO	02	D	P		DRILLED F/ 8962' / 9300' 338' @96.5 FPH
	13:30 - 15:30	2.00	DRLPRO	05	C	P		CIRC. AND COND HOLE FOR SHORT TRIP TO SHOE
	15:30 - 16:00	0.50	DRLPRO	05	J	P		CHECK FOR FLOW -- NO FLOW
	16:00 - 21:30	5.50	DRLPRO	06	F	P		TRIP TO SHOE NO TIGHT SPOTS, TIH NO FILL
	21:30 - 22:30	1.00	DRLPRO	05	C	P		CIRC. AND COND HLOE FOR LOGS
	22:30 - 23:00	0.50	DRLPRO	05	J	P		CHECK FOR FLOW , DROP SURVEY, NO FLOW
	23:00 - 0:00	1.00	DRLPRO	06	B	P		TOOH FOR LOGS
8/31/2011	0:00 - 2:00	2.00	DRLPRO	06	B	P		FINISH TOOH BREAK BIT, RACK BACK MM
	2:00 - 3:00	1.00	DRLPRO	11	D	P		CLEAN FLOOR AND PULL WEAR BUSHING
	3:00 - 3:30	0.50	ALL	21	E	Z		WAIT ON HALLIBURTON
	3:30 - 4:00	0.50	DRLPRO	11	D	P		JSA AND RIG UP LOGGING UNIT
	4:00 - 8:30	4.50	DRLPRO	11	D	P		RUN TRIPLE COMBO LOGS TO 9296' NO BRIDGES,RIG DOWN LOGGERS(LOGGERS TD 9296',DRILLERS TD 9300')
	8:30 - 10:30	2.00	CSG	12	A	P		HOLD SAFTEY MEETING,CHANGE OUT BAILS & ELEVATORS,R/U FRANKS CASING EQUIP & LD/P/U DOWN MACHINE

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-29I1CS BLUE	Spud Conductor: 7/21/2011	Spud Date: 7/25/2011	
Project: UTAH-UINTAH	Site: NBU 1021-29I PAD		Rig Name No: H&P 311/311, PROPETRO 11/11
Event: DRILLING	Start Date: 7/22/2011		End Date: 8/31/2011
Active Datum: RKB @5,154.00usft (above Mean Sea Level)	UWI: NBU 1021-29I1CS		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	10:30 - 18:00	7.50	CSG	12	C	P		RUN SHOE,SHOE JNT & 220 JNTS 4 1/2" I-80 BTC 11.6# CSG W/THE SHOE SET @9303' & THE FLOAT @ 9260'(/MARKER JNTS @4091' & 7044')
	18:00 - 19:00	1.00	CSG	05	D	P		FILL PIPE CIRC OUT GAS,COND HOLE F/CEMENT
	19:00 - 19:30	0.50	CSG	12	B	P		HOLD SAFTEY MEETING,INSTALL CEMENT HEAD,R/U BJ CEMENTING EQUIP
	19:30 - 22:30	3.00	CSG	12	E	P		PRESSURE TEST 5000 10 MIN,PUMPED 5 BBL PRE FLUSH H2O, 14 BBLS SCAVENGER 10.0#,5.14YD, 20 SKS, 34GPS--167 BBLS LEAD,11.0 #,3.21 YD,290 SKS,19.49 GPS--285 BBLS TAIL, 14.3#,1.31YD,1220 SKS,GPS 5.90. DISPLACED 144 BBLS H2O W/CLAY-CARE ,FINAL LIFT PRESS 3200 PSI, BUMP PLUG T/3700 PSI,HELD FOR 5MIN.BLEED OFF FLOATS HELD--60 BBLS LEAD CEMENT T/SURF, TOP OF TAIL 3600',R/D BJ CEMENTING EQUIP.
	22:30 - 0:00	1.50	CSG	14	A	P		NIPPLE DOWN BOPE,SET C-22 4 1/2" CSG SLIPS W/103 K ON SLIPS,(RELEASE RIG @ 00:00 09/1/2011)

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-29I1CS BLUE	Spud Conductor: 7/21/2011	Spud Date: 7/25/2011	
Project: UTAH-UINTAH	Site: NBU 1021-29I PAD		Rig Name No: H&P 311/311, PROPETRO 11/11
Event: DRILLING	Start Date: 7/22/2011		End Date: 8/31/2011
Active Datum: RKB @5,154.00usft (above Mean Sea Level)	UWI: NBU 1021-29I1CS		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	23:59 - 23:59	0.00	CSG					CONDUCTOR CASING: Cond. Depth set:40' Cement sx used:20 SPUD DATE/TIME:7/25/2011 22:00 SURFACE HOLE: Surface From depth:40' Surface To depth:2160' Total SURFACE hours:16.50 Surface Casing size:8.625" # of casing joints ran:48 JNTS Casing set MD:2128' # sx of cement:200/200/100 Cement blend (ppg:)11.0/15.8/15.8 Cement yield (ft3/sk):3.82/1.15/1.15 # of bbls to surface:2 Describe cement issues:NONE Describe hole issues:NONE PRODUCTION: Rig Move/Skid start date/time:8/26/2011 1:30 Rig Move/Skid finish date/time:8/26/2011 4:00 Total MOVE hours:2.5 Prod Rig Spud date/time:8/26/2011 23:00 Rig Release date/time:8/31/2011 23:59 Total SPUD to RR hours:121.0 Planned depth MD9,295 Planned depth TVD9,279 Actual MD:9,300 Actual TVD:9,283 Open Wells $: AFE $: Open wells $/ft: PRODUCTION HOLE: Prod. From depth:2,181 Prod. To depth:9,300 Total PROD hours: 75.5 Log Depth:9296' Float Collar Top Depth:9260 Production Casing size:4.5" # of casing joints ran:221 Casing set MD:9303' # sx of cement:1,510 Cement blend (ppg:)11.0/14.3 Cement yield (ft3/sk):3.21/1.31 Est. TOC (Lead & Tail) or 2 Stage :0/3600' Describe cement issues:NONE Describe hole issues:NONE DIRECTIONAL INFO: KOP:300' Max angle:8.25 DEGREES Departure:263.12'

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-29I1CS BLUE	Spud Conductor: 7/21/2011	Spud Date: 7/25/2011	
Project: UTAH-UINTAH	Site: NBU 1021-29I PAD		Rig Name No: H&P 311/311, PROPETRO 11/11
Event: DRILLING	Start Date: 7/22/2011		End Date: 8/31/2011
Active Datum: RKB @5,154.00usft (above Mean Sea Level)	UWI: NBU 1021-29I1CS		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
								Max dogleg MD:2.75 DEGREES @2390'

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 1021-29I1CS BLUE	**Wellbore No.**	OH
Well Name	NBU 1021-29I1CS	**Wellbore Name**	NBU 1021-29I1CS
Report No.	1	**Report Date**	10/7/2011
Project	UTAH-UINTAH	**Site**	NBU 1021-29I PAD
Rig Name/No.		**Event**	COMPLETION
Start Date	10/7/2011	**End Date**	10/21/2011
Spud Date	7/25/2011	**Active Datum**	RKB @5,154.00usft (above Mean Sea Level)
UWI	NBU 1021-29I1CS		

1.3 General

Contractor	CASED HOLE SOLUTIONS	**Job Method**	PERFORATE	**Supervisor**	ED GUDAC
Perforated Assembly	PRODUCTION CASING	***Conveyed Method***	WIRELINE		

1.4 Initial Conditions

Fluid Type		***Fluid Density***	
Surface Press		**Estimate Res Press**	
TVD Fluid Top		**Fluid Head**	
Hydrostatic Press		**Press Difference**	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	6,245.0 (usft)-8,906.0 (usft	**Start Date/Time**	10/10/2011 12:00AM
No. of Intervals	22	**End Date/Time**	10/10/2011 12:00AM
Total Shots	0	**Net Perforation Interval**	42.00 (usft)
Avg Shot Density	0.00 (shot/ft)	**Final Surface Pressure**	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
10/10/2011 12:00AM	WASATCH/			6,245.0	6,251.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

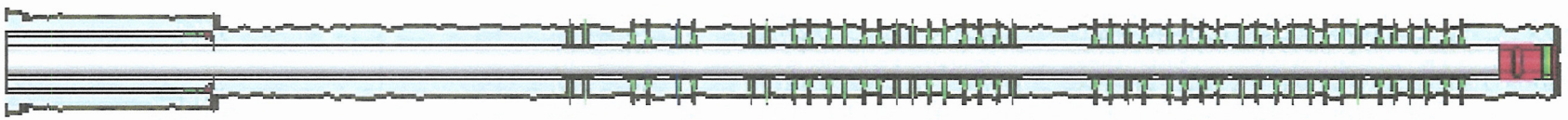
Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
10/10/2011 12:00AM	WASATCH/			6,619.0	6,622.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	WASATCH/			6,795.0	6,798.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			7,296.0	7,297.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			7,427.0	7,432.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			7,482.0	7,483.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			7,525.0	7,526.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			7,550.0	7,551.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			7,565.0	7,566.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			7,610.0	7,611.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			7,639.0	7,640.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			8,422.0	8,424.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			8,444.0	8,445.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			8,560.0	8,562.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			8,594.0	8,595.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
10/10/2011 12:00AM	MESAVERDE/			8,690.0	8,691.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			8,738.0	8,740.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			8,762.0	8,764.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			8,783.0	8,784.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			8,852.0	8,854.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			8,866.0	8,867.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
10/10/2011 12:00AM	MESAVERDE/			8,903.0	8,906.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

3 Plots

3.1 Wellbore Schematic



US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-29I1CS BLUE	Spud Conductor: 7/21/2011	Spud Date: 7/25/2011	
Project: UTAH-UINTAH	Site: NBU 1021-29I PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 10/7/2011		End Date: 10/21/2011
Active Datum: RKB @5,154.00usft (above Mean Sea Level)	UWI: NBU 1021-29I1CS		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
10/6/2011	7:00 - 11:00	4.00	COMP	33		P		FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 13 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 12 PSI. 1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 69 PSI. BLEED OFF PSI MOVE TO NEXT WELL.SWI
10/7/2011	12:00 - 15:00	3.00	COMP	37		P		PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER PERF DESIGN. POOH. SWI
10/13/2011	7:00 - 7:15	0.25	COMP	48		P		RU SUPEIOR FRAC CREW HELD SAFETY MEETING HIGH PRESSURE AND POP OFFS.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-29I1CS BLUE	Spud Conductor: 7/21/2011	Spud Date: 7/25/2011	
Project: UTAH-UINTAH	Site: NBU 1021-29I PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 10/7/2011		End Date: 10/21/2011
Active Datum: RKB @5,154.00usft (above Mean Sea Level)	UWI: NBU 1021-29I1CS		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 17:00	9.75	COMP	36	B			4845FRAC STG 1)WHP 230 PSI, BRK 4438 PSI @ 4.6 BPM. ISIP 3057 PSI, FG .78 CALC HOLES OPEN @ 52.1 BPM @ 5476 PSI = 100% HOLES OPEN. ISIP 2891 PSI, FG .76, NPI -166 PSI. MP 6361 PSI, MR 52.7 BPM, AP 5451 PSI, AR 52.2 BPM X-OVER FOR W L PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8814' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW FRAC STG 2)WHP 35 PSI, BRK 5315 PSI @ 4.5 BPM. ISIP 2771 PSI, FG .76 CALC HOLES OPEN @ 50.1 BPM @ 5252 PSI = 100% HOLES OPEN. ISIP 3102 PSI, FG .79, NPI 331 PSI. MP 5333 PSI, MR 50.7 BPM, AP 4845 PSI, AR 50.3 BPM X-OVER FOR W L PERF STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8625' P/U PERF AS PER PERF DESIGN. POOH X-OVER FOR FRAC CREW. FRAC STG 3)WHP 600 PSI, BRK 4922 PSI @ 4.6 BPM. ISIP 3161 PSI, FG ..81 CALC HOLES OPEN @ 50.2 BPM @ 4798 PSI = 100% HOLES OPEN. ISIP 2442 PSI, FG .73 NPI 719 PSI. MP 5349 PSI, MR 50.8 BPM, AP 4616 PSI, AR 50.4 BPM X-OVER FOR W L PERF STG 4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7670' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW FRAC STG 4)WHP 460 PSI, BRK 2336 PSI @ 4.2 BPM. ISIP 1575 PSI, FG .65 CALC HOLES OPEN @ 50.4 BPM @ 4338 PSI = 95% HOLES OPEN. ISIP 2472 PSI, FG .77, NPI 897 PSI. MP 4856 PSI, MR 50.8 BPM, AP 4504 PSI, AR 50.5 BPM X-OVER FOR W L PERF STG 5)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7462' P/U PERF AS PER PERF DESIGN.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-29I1CS BLUE	Spud Conductor: 7/21/2011	Spud Date: 7/25/2011	
Project: UTAH-UINTAH	Site: NBU 1021-29I PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 10/7/2011		End Date: 10/21/2011
Active Datum: RKB @5,154.00usft (above Mean Sea Level)	UWI: NBU 1021-29I1CS		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
								POOH.SWIFN
10/14/2011	6:45 - 7:00	0.25	COMP	48		P		HELD SAFETY MEEETING : RD EQUIPMENT AND MOVING OFF LOCATION & PICKING UP TRASH
	7:00 - 15:00	8.00	COMP	36	B	P		FRAC STG 5)WHP 1100 PSI, BRK 4621 PSI @ 4.5 BPM. ISIP 2533 PSI, FG .78 CALC HOLES OPEN @ 47.8 BPM @ 5675 PSI = 78% HOLES OPEN. ISIP 2770 PSI, FG .81 NPI 237 PSI. MP 6452 PSI, MR 54.1 BPM, AP 5211 PSI, AR 51.3 BPM X-OVER FOR W L PERF STG 6)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 6828' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW FRAC STG 6)WHP 728 PSI, BRK 2600 PSI @ 4.1 BPM. ISIP 1155 PSI, FG .61 CALC HOLES OPEN @ 52.1 BPM @ 4451 PSI = 82% HOLES OPEN. ISIP 2879 PSI, FG .87 NPI 1724 PSI. MP 5631 PSI, MR 52.7 BPM, AP 5041 PSI, AR 52.1 BPM X-OVER FOR W L PERF STG 7)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 6281' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW FRAC STG 7)WHP 120 PSI, BRK 2787 PSI @ 4.5 BPM. ISIP 1281 PSI, FG .64 CALC HOLES OPEN @ 51.4 BPM @ 5035 PSI = 72% HOLES OPEN. ISIP 2567 PSI, FG .85 NPI 1286 PSI. MP 5160 PSI, MR 52.3 BPM, AP 4837 PSI, AR 52.2 BPM X-OVER FOR W L PU 4 1/2 HAL CBP RIH SET KILL PLUG @ 6195 POOH SWI RD W.L TOTAL SAND = 135,608 # TOTAL TOTAL CLFL = 6424 BBLS

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-29I1CS BLUE	Spud Conductor: 7/21/2011	Spud Date: 7/25/2011	
Project: UTAH-UINTAH	Site: NBU 1021-29I PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 10/7/2011		End Date: 10/21/2011
Active Datum: RKB @5,154.00usft (above Mean Sea Level)	UWI: NBU 1021-29I1CS		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
10/20/2011	11:00 - 17:00	6.00	COMP	31	I	P		MIRU, SPOT EQUIP, N/D WH, N/U 5K BOP, R/U FLOOR & TBG EQUIP, R/U HAL 9000 & FLOWLINE TO PIT, SPOT TBG TRAILER, P/U TBG, REMOVE THREAD PROTECTORS, TALLY & DRIFT TBG TO KILL PLUG, R/U P/S, FILL TBG, BREAK CIRC, PRESS TEST BOP TO 3,000 PSI FOR 15 MIN, LOST 0 PSI, SURFACE CSG VALVE OPEN & LOCKED, START DRLG PLUGS. C/O 20' SAND, TAG 1ST PLUG @ 6,195' DRL PLUG IN 12 MIN. 200 PSI INCREASE RIH, CSG PRESS 0 PSI. WOULD NOT FLOW W/O PUMPING. C/O 30' SAND, TAG 2ND PLUG @ 6,281' DRL PLUG IN 10 MIN. 150 PSI INCREASE RIH, CSG PRESS 0 PSI. WOULD NOT FLOW W/O PUMPING CIRC & LET WELL CLEAN UP FOR 30 MIN, D/O REMAINING PLUGS IN AM, EOT @ 6,350', SWI, SDFN.
10/21/2011	7:00 - 7:15	0.25	COMP	48		P		HSM, SLIPS, TRIPS & FALLS, D/O PLUG LANDING TBG

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-29I1CS BLUE	Spud Conductor: 7/21/2011	Spud Date: 7/25/2011	
Project: UTAH-UINTAH	Site: NBU 1021-29I PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 10/7/2011		End Date: 10/21/2011
Active Datum: RKB @5,154.00usft (above Mean Sea Level)	UWI: NBU 1021-29I1CS		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 -		COMP	44	C	P		SICP 400 PSI, OPEN WELL BLEED OFF PRESS, OPEN RAMS, FINISH D/O REMAINING 5 PLUGS, SURFACE CSG VALVE OPEN & LOCKED. NO GAS IN 2 WASATCH ZONES STRAIGHT WATER WHEN WELL WAS OPENED UP. C/O 15' SAND, TAG 3RD PLUG @ 6,828' DRL PLUG IN 8 MIN. 500 PSI INCREASE RIH, CSG PRESS 50 PSI. C/O 30' SAND, TAG 4TH PLUG @ 7,459' DRL PLUG IN 10 MIN. 300 PSI INCREASE RIH, CSG PRESS 50 PSI. C/O 35' SAND, TAG 5TH PLUG @ 7,670' DRL PLUG IN 9 MIN. 300 PSI INCREASE RIH, CSG PRESS 100 PSI. C/O 20' SAND, TAG 6TH PLUG @ 8,625' DRL PLUG IN 10 MIN. 600 PSI INCREASE RIH, CSG PRESS 150 PSI. C/O 20' SAND, TAG 7TH PLUG @ 8,814' DRL PLUG IN 9 MIN. 500 PSI INCREASE RIH, CSG PRESS 250 PSI. NOTE: FIRST 4 ZONES NOT MUCH GAS MOSTLY WATER, LAST 3 ZONES GOOD GAS, WELL STILL MAKING LOTS OF WATER, APPROX G/LR 50/50. PBTD @ 9,259', BTM PERF @ 8,906', RIH TO 9,108' NO TAG, 202' PAST BTM PERF W/ 287 JTS 2 3/8" L-80 TBG, LD 8 JTS, PU & STRIP IN TBG HANGER & LAND TBG W/ 279 JTS 2 3/8" L-80, EOT 8,852.78'. RD POWER SWIVEL, FLOOR & TBG EQUIP, ND BOPS, NU WH, DROP BALL TO SHEAR OFF BIT W/ 2,500 PSI, LET BIT FALL FOR 20 MIN. TURN OVER TO FLOW BACK CREW, RD & MOVE TO NEXT WELL ON PAD. KB= 19' 4 1/16" WEATHERFORD HANGER= .83' TBG DELIVERED 315 JTS 279 JTS 2 3/8" L-80 = 8,830.75' TBG USED 279 JTS POBS= 2.20' TBG RETURNED 36 JTS EOT @ 8,852.78' TWTR= 6,424 BBLS TWR= 1,500 BBLS TWLTR= 4,924 BBLS

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well Information

Well	NBU 1021-29I1CS BLUE	**Wellbore No.**	OH
Well Name	NBU 1021-29I1CS	**Common Name**	NBU 1021-29I1CS
Project	UTAH-UINTAH	**Site**	NBU 1021-29I PAD
Vertical Section Azimuth		**North Reference**	True
Origin N/S		**Origin E/W**	
Spud Date	7/25/2011	**UWI**	NBU 1021-29I1CS
Active Datum	RKB @5,154.00usft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	**Company**	WEATHERFORD
Started	7/26/2011	**Ended**	
Tool Name	MWD	**Engineer**	Anadarko

2.1.1 Tie On Point

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)
21.00	0.00	0.00	21.00	0.00	0.00

2.1.2 Survey Stations

Date	Type	MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	TFace (°)
7/26/2011	Tie On	21.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/2011	NORMAL	197.00	0.54	267.16	197.00	-0.04	-0.83	-0.04	0.31	0.31	0.00	267.16
	NORMAL	281.00	1.33	7.46	280.99	0.91	-1.10	0.91	1.81	0.94	119.40	120.72
	NORMAL	367.00	2.23	356.52	366.95	3.57	-1.07	3.57	1.11	1.05	-12.72	-26.21
	NORMAL	451.00	3.56	349.29	450.84	7.76	-1.65	7.76	1.64	1.58	-8.61	-18.98
	NORMAL	541.00	4.81	339.62	540.60	14.04	-3.49	14.04	1.59	1.39	-10.74	-34.33
	NORMAL	631.00	5.88	337.50	630.21	21.84	-6.56	21.84	1.21	1.19	-2.36	-11.51
	NORMAL	721.00	6.88	332.87	719.65	30.90	-10.79	30.90	1.25	1.11	-5.14	-29.54
	NORMAL	811.00	7.36	331.12	808.95	40.74	-16.03	40.74	0.59	0.53	-1.94	-25.19
	NORMAL	901.00	7.00	330.25	898.25	50.55	-21.54	50.55	0.42	-0.40	-0.97	-163.62
	NORMAL	991.00	7.06	328.12	987.57	60.01	-27.18	60.01	0.30	0.07	-2.37	-78.10
	NORMAL	1,081.00	7.44	325.87	1,076.85	69.53	-33.37	69.53	0.53	0.42	-2.50	-37.89
	NORMAL	1,171.00	8.06	327.37	1,166.03	79.67	-40.04	79.67	0.72	0.69	1.67	18.81
	NORMAL	1,261.00	7.75	332.12	1,255.17	90.34	-46.28	90.34	0.80	-0.34	5.28	117.73
	NORMAL	1,351.00	8.25	330.75	1,344.30	101.34	-52.27	101.34	0.59	0.56	-1.52	-21.55
	NORMAL	1,441.00	7.50	333.75	1,433.45	112.24	-58.03	112.24	0.95	-0.83	3.33	152.76
	NORMAL	1,531.00	7.06	330.12	1,522.72	122.31	-63.38	122.31	0.71	-0.49	-4.03	-135.52
	NORMAL	1,621.00	6.38	333.62	1,612.11	131.58	-68.36	131.58	0.88	-0.76	3.89	150.67
	NORMAL	1,711.00	6.50	336.37	1,701.54	140.73	-72.62	140.73	0.37	0.13	3.06	70.11

2.1.2 Survey Stations (Continued)

Date	Type	MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	TFace (°)
7/26/2011	NORMAL	1,801.00	7.69	332.25	1,790.85	150.73	-77.47	150.73	1.44	1.32	-4.58	-25.21
	NORMAL	1,891.00	7.75	332.00	1,880.03	161.41	-83.12	161.41	0.08	0.07	-0.28	-29.36
	NORMAL	1,981.00	8.06	333.62	1,969.18	172.42	-88.77	172.42	0.42	0.34	1.80	36.51
	NORMAL	2,071.00	7.75	329.12	2,058.32	183.28	-94.69	183.28	0.77	-0.34	-5.00	-118.82
	NORMAL	2,121.00	7.64	328.13	2,107.87	189.00	-98.17	189.00	0.00	0.00	0.00	0.00
8/26/2011	NORMAL	2,121.00	7.64	328.13	2,107.87	189.00	-98.17	189.00	0.34	-0.22	-1.98	-130.18
	NORMAL	2,201.00	7.47	318.33	2,187.18	197.40	-104.44	197.40	1.62	-0.21	-12.25	-102.36
	NORMAL	2,295.00	6.77	314.02	2,280.46	205.82	-112.49	205.82	0.94	-0.74	-4.59	-144.78
	NORMAL	2,390.00	4.40	302.51	2,375.00	211.67	-119.59	211.67	2.75	-2.49	-12.12	-160.36
	NORMAL	2,484.00	2.64	316.00	2,468.82	215.16	-124.13	215.16	2.06	-1.87	14.35	161.43
	NORMAL	2,578.00	1.93	348.21	2,562.75	218.27	-125.96	218.27	1.53	-0.76	34.27	134.38
	NORMAL	2,673.00	1.93	347.86	2,657.70	221.40	-126.62	221.40	0.01	0.00	-0.37	-90.17
	NORMAL	2,767.00	2.03	350.65	2,751.64	224.59	-127.23	224.59	0.15	0.11	2.97	45.35
	NORMAL	2,861.00	1.89	333.15	2,845.59	227.61	-128.20	227.61	0.65	-0.15	-18.62	-111.81

2.2 Survey Name: Survey #2

Survey Name	Survey #2	**Company**	SCIENTIFIC DRILLING
Started	8/27/2011	**Ended**	
Tool Name	MWD	**Engineer**	Anadarko

2.2.1 Tie On Point

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)
2,121.00	7.64	328.13	2,107.87	189.00	-98.17

2.2.2 Survey Stations

Date	Type	MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	TFace (°)
8/27/2011	Tie On	2,121.00	7.64	328.13	2,107.87	189.00	-98.17	189.00	0.00	0.00	0.00	0.00
8/27/2011	NORMAL	2,201.00	7.47	318.33	2,187.18	197.40	-104.44	197.40	1.62	-0.21	-12.25	-102.36
	NORMAL	2,295.00	6.77	314.02	2,280.46	205.82	-112.49	205.82	0.94	-0.74	-4.59	-144.78
	NORMAL	2,390.00	4.40	302.51	2,375.00	211.67	-119.59	211.67	2.75	-2.49	-12.12	-160.36
	NORMAL	2,484.00	2.64	316.04	2,468.82	215.16	-124.13	215.16	2.06	-1.87	14.39	161.38
	NORMAL	2,578.00	1.93	348.21	2,562.75	218.27	-125.96	218.27	1.53	-0.76	34.22	134.39
	NORMAL	2,673.00	1.93	347.86	2,657.70	221.40	-126.62	221.40	0.01	0.00	-0.37	-90.17
	NORMAL	2,767.00	2.03	350.65	2,751.64	224.59	-127.22	224.59	0.15	0.11	2.97	45.35
	NORMAL	2,861.00	1.89	333.15	2,845.59	227.62	-128.19	227.62	0.65	-0.15	-18.62	-111.81
	NORMAL	2,956.00	0.26	306.55	2,940.57	229.14	-129.08	229.14	1.75	-1.72	-28.00	-175.98
	NORMAL	3,050.00	0.35	250.39	3,034.57	229.17	-129.52	229.17	0.32	0.10	-59.74	-102.62
	NORMAL	3,144.00	0.44	197.04	3,128.56	228.73	-129.89	228.73	0.39	0.10	-56.76	-103.90
	NORMAL	3,239.00	0.53	192.82	3,223.56	227.95	-130.10	227.95	0.10	0.09	-4.44	-23.77
	NORMAL	3,333.00	0.97	179.99	3,317.55	226.74	-130.19	226.74	0.50	0.47	-13.65	-27.39
	NORMAL	3,427.00	1.32	176.12	3,411.53	224.86	-130.12	224.86	0.38	0.37	-4.12	-14.40
	NORMAL	3,522.00	0.35	185.97	3,506.52	223.48	-130.08	223.48	1.03	-1.02	10.37	176.49
	NORMAL	3,616.00	0.97	166.45	3,600.51	222.42	-129.92	222.42	0.69	0.66	-20.77	-29.87
	NORMAL	3,710.00	1.41	189.92	3,694.49	220.51	-129.93	220.51	0.69	0.47	24.97	60.06
	NORMAL	3,805.00	0.70	105.63	3,789.48	219.20	-129.58	219.20	1.59	-0.75	-88.73	-152.54
	NORMAL	3,899.00	0.79	120.84	3,883.47	218.71	-128.47	218.71	0.23	0.10	16.18	73.26
	NORMAL	3,994.00	0.88	162.06	3,978.47	217.68	-127.68	217.68	0.63	0.09	43.39	102.45
	NORMAL	4,088.00	0.79	55.54	4,072.46	217.36	-126.92	217.36	1.42	-0.10	-113.32	-145.56
	NORMAL	4,182.00	0.62	26.80	4,166.45	218.18	-126.16	218.18	0.41	-0.18	-30.57	-129.57

2.2.2 Survey Stations (Continued)

Date	Type	MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	TFace (°)
8/27/2011	NORMAL	4,277.00	0.35	45.96	4,261.45	218.84	-125.72	218.84	0.33	-0.28	20.17	158.35
	NORMAL	4,371.00	0.35	78.83	4,355.45	219.10	-125.23	219.10	0.21	0.00	34.97	106.43
	NORMAL	4,465.00	0.44	94.73	4,449.45	219.12	-124.59	219.12	0.15	0.10	16.91	58.74
	NORMAL	4,560.00	0.79	81.20	4,544.44	219.19	-123.58	219.19	0.40	0.37	-14.24	-29.39
	NORMAL	4,654.00	0.88	81.46	4,638.43	219.40	-122.22	219.40	0.10	0.10	0.28	2.54
	NORMAL	4,749.00	0.79	95.35	4,733.42	219.45	-120.85	219.45	0.23	-0.09	14.62	120.81
	NORMAL	4,843.00	0.44	211.54	4,827.42	219.08	-120.39	219.08	1.13	-0.37	123.61	158.14
	NORMAL	4,937.00	0.35	224.11	4,921.41	218.57	-120.78	218.57	0.13	-0.10	13.37	142.25
	NORMAL	5,032.00	0.35	195.81	5,016.41	218.08	-121.06	218.08	0.18	0.00	-29.79	-104.15
	NORMAL	5,126.00	0.44	166.10	5,110.41	217.45	-121.06	217.45	0.23	0.10	-31.61	-81.61
	NORMAL	5,220.00	0.70	175.15	5,204.41	216.53	-120.92	216.53	0.29	0.28	9.63	23.66
	NORMAL	5,314.00	0.79	171.81	5,298.40	215.32	-120.78	215.32	0.11	0.10	-3.55	-27.43
	NORMAL	5,409.00	0.88	184.91	5,393.39	213.94	-120.75	213.94	0.22	0.09	13.79	71.40
	NORMAL	5,503.00	1.41	121.98	5,487.37	212.61	-119.83	212.61	1.36	0.56	-66.95	-100.74
	NORMAL	5,597.00	1.41	141.49	5,581.34	211.09	-118.13	211.09	0.51	0.00	20.76	99.75
	NORMAL	5,691.00	0.26	304.74	5,675.34	210.31	-117.58	210.31	1.77	-1.22	173.67	177.41
	NORMAL	5,786.00	0.18	290.12	5,770.34	210.48	-117.90	210.48	0.10	-0.08	-15.39	-152.11
	NORMAL	5,880.00	0.35	161.53	5,864.33	210.26	-117.95	210.26	0.51	0.18	-136.80	-145.52
	NORMAL	5,975.00	0.44	153.97	5,959.33	209.66	-117.70	209.66	0.11	0.09	-7.96	-33.89
	NORMAL	6,069.00	0.70	167.24	6,053.33	208.77	-117.41	208.77	0.31	0.28	14.12	33.66
8/28/2011	NORMAL	6,164.00	0.70	171.02	6,148.32	207.63	-117.19	207.63	0.05	0.00	3.98	91.89
	NORMAL	6,258.00	0.70	182.01	6,242.31	206.49	-117.12	206.49	0.14	0.00	11.69	95.49
	NORMAL	6,352.00	1.32	119.43	6,336.30	205.39	-116.20	205.39	1.25	0.66	-66.57	-94.49
	NORMAL	6,447.00	1.58	127.08	6,431.27	204.06	-114.20	204.06	0.34	0.27	8.05	40.53
	NORMAL	6,541.00	0.53	122.33	6,525.25	203.05	-112.80	203.05	1.12	-1.12	-5.05	-177.61
	NORMAL	6,636.00	0.44	145.01	6,620.25	202.51	-112.22	202.51	0.22	-0.09	23.87	126.17
	NORMAL	6,730.00	0.70	127.78	6,714.25	201.87	-111.56	201.87	0.33	0.28	-18.33	-42.21
	NORMAL	6,824.00	0.70	142.46	6,808.24	201.06	-110.76	201.06	0.19	0.00	15.62	97.34
	NORMAL	6,919.00	0.88	135.96	6,903.23	200.07	-109.89	200.07	0.21	0.19	-6.84	-29.74
	NORMAL	7,013.00	0.97	153.36	6,997.22	198.84	-109.04	198.84	0.31	0.10	18.51	81.06
	NORMAL	7,108.00	0.44	236.85	7,092.21	197.93	-108.98	197.93	1.07	-0.56	87.88	154.59
	NORMAL	7,202.00	0.79	318.33	7,186.21	198.21	-109.71	198.21	0.90	0.37	86.68	112.46
	NORMAL	7,296.00	0.62	334.68	7,280.20	199.16	-110.36	199.16	0.28	-0.18	17.39	138.18
	NORMAL	7,391.00	0.35	312.53	7,375.20	199.82	-110.80	199.82	0.34	-0.28	-23.32	-155.96
	NORMAL	7,485.00	0.18	331.16	7,469.20	200.14	-111.08	200.14	0.20	-0.18	19.82	162.23
	NORMAL	7,580.00	0.26	129.98	7,564.20	200.13	-110.99	200.13	0.46	0.08	167.18	167.46
	NORMAL	7,674.00	0.70	126.38	7,658.19	199.65	-110.36	199.65	0.47	0.47	-3.83	-5.72
	NORMAL	7,768.00	0.35	53.25	7,752.19	199.49	-109.67	199.49	0.73	-0.37	-77.80	-150.76
	NORMAL	7,863.00	0.35	123.39	7,847.19	199.50	-109.19	199.50	0.42	0.00	73.83	125.07
	NORMAL	7,957.00	0.70	97.02	7,941.18	199.27	-108.38	199.27	0.44	0.37	-28.05	-48.28
8/29/2011	NORMAL	8,051.00	0.88	115.83	8,035.17	198.89	-107.16	198.89	0.33	0.19	20.01	64.88
	NORMAL	8,146.00	1.32	116.36	8,130.16	198.08	-105.53	198.08	0.46	0.46	0.56	1.59
	NORMAL	8,240.00	0.35	98.34	8,224.15	197.56	-104.27	197.56	1.06	-1.03	-19.17	-173.74
	NORMAL	8,334.00	0.18	57.65	8,318.15	197.60	-103.86	197.60	0.26	-0.18	-43.29	-151.21
	NORMAL	8,429.00	0.53	137.98	8,413.14	197.35	-103.44	197.35	0.56	0.37	84.56	99.88
	NORMAL	8,523.00	0.53	139.91	8,507.14	196.70	-102.87	196.70	0.02	0.00	2.05	90.96
	NORMAL	8,617.00	1.06	149.93	8,601.13	195.61	-102.16	195.61	0.58	0.56	10.66	19.74
	NORMAL	8,712.00	1.23	160.56	8,696.11	193.89	-101.38	193.89	0.29	0.18	11.19	56.72
	NORMAL	8,806.00	1.49	171.11	8,790.08	191.73	-100.85	191.73	0.38	0.28	11.22	49.28
	NORMAL	8,900.00	1.93	168.91	8,884.04	188.97	-100.36	188.97	0.47	0.47	-2.34	-9.59
8/30/2011	NORMAL	9,300.00	1.60	165.40	9,283.85	176.96	-97.66	176.96	0.09	-0.08	-0.88	-163.61

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